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HALICARNASSUS, CNIDUS, AND BRANCHIDÆ.

VOLUME II.

IN TWO PARTS.—PART I.

A HISTORY OF DISCOVERIES

AT

HALICARNASSUS, CNIDUS,

AND

BRANCHIDÆ.

BY

C. T. NEWTON, M.A.,

KEEPER OF THE GREEK AND ROMAN ANTIQUITIES, BRITISH MUSEUM:

ASSISTED BY

R. P. PULLAN, F.R.I.B.A.

LONDON:

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GULF OF MANDELIYAR
GULF OF KOS
GULF OF DORIS
KOS I.
LERO
LIBA MOUNTAINS
GIOVA BAY
MUGHLA
SYMI
SYMI GULF
THE COAST
OF
CARIA
INCLUDING THE GULFS OF
MANDELIYAH, KOS & DORIS

PREFACE.

It has been my object in this work to present to the public an authentic and exact narrative of the proceedings of an Expedition to Asia Minor, with the direction of which I had the honour to be charged by Her Majesty's Government, in 1856, during the Premiership of Viscount Palmerston. This Expedition, which commenced in October, 1856, was brought to a close in June, 1859.

The materials from which the present work have been chiefly prepared are as follows :—

(1.) My official Reports of the Proceedings of the Expedition, addressed to Her Majesty's Secretary of State for Foreign Affairs, which were subsequently laid before Parliament, and published under the following titles :—

Papers respecting the excavations at Budrum. Presented to both Houses of Parliament, by command of Her Majesty, March 26, 1858.

Further Papers respecting the excavations at Budrum and Cnidus. Presented to the House of Commons by command of Her Majesty, in pursuance of their Address, dated August 2, 1859.

(2.) The Architectural Drawings and Reports made by Mr. R. P. Pullan, the architect attached to the Expedition.

(3.) The Plans and Reports made by Lieutenant R. M. Smith, R.E., the officer in command of the small detachment of Royal Engineers who were employed on this special service.

(4.) Photographs taken at the several sites excavated by Corporals B. Spackman and M^c^Cartney, R.E.

(5.) The Admiralty Charts of the part of the coast of Asia Minor visited by the Expedition.

In the account of the excavations, the text of the official Reports, already referred to, has been adopted wherever it was practicable; and very few of the details originally considered worthy of record have been omitted. It has been thought, that descriptions drawn up during the progress, and on the actual site of the several excavations, will be more valued by archæologists, than if an attempt had been made to recast them in a more popular and abridged form.

The architectural plates have been prepared under the superintendence of Mr. Pullan, who has also contributed their description in volume I., and in the present volume the Chapter on the restora-

ion of the Mausoleum, that on the architecture of the Lion Tomb, the description of the Castle at Budrum, and an account of a tour in the island of Cos. I have to acknowledge much valuable assistance, received during the preparation of this work, from Mr. Birch, Mr. F. C. Penrose, Mr. R. S. Poole, Mr. Vaux, and from Captain Washington, R.N., Hydrographer to the Admiralty, under whose supervision the map of Caria has been drawn and engraved.

C. T. NEWTON.

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HALICARNASSUS.

CHAPTER I.

HISTORY OF CARIA.

Early History of Caria. Geographical Limits and Physical Peculiarities. Earliest Inhabitants—Phœnicians; Carians—their Nautical and Military Skill; their employment as Mercenaries; their Language. Leleges—their original extent and subsequent dispersion. Caunians. Spread of Greek Settlers on Coasts of Caria and Ionia. Colonists of Halicarnassus from Trœzen. Variance in Traditions of this settlement. Inscription relating to Salmacians. Probable fusion of Natives and Greek settlers into one community. Exclusion of Halicarnassus from League of Doric Hexapolis. Hellenium at Naucratis. Confederacies of native Carian *Komæ*. Conquest of Caria by Kings of Lydia. Carian Mercenaries in Egypt under Psammetichus I. Persian Conquest of Carians; their Revolt with Ionia, and reconquest. Lygdamid Dynasty at Halicarnassus. Artemisia—her Exploits at Salamis. Lygdamis—his Expulsion; Greek Inscription relating to his time. Greek settlements in Caria tributary to Athens. Peace of Antalcidas.

THE expedition which forms the subject of the present work was sent out by Her Majesty's Government in the first instance with the special object of removing from the Castle of Budrum, in Asia Minor, certain sculptures, which had formed part of the Tomb of Mausolus at Halicarnassus. The proceedings of the expedition in reference to the Mausoleum constitute, therefore, the first division of this work.

It will be convenient, before entering on a detailed account of the expedition itself, to give a brief sketch of the history of Halicarnassus, and of the nation and dynasty to which Mausolus belonged, and to recapitulate the few well-known passages in classical or Byzantine writers which give us any information on the subject of his celebrated tomb.

The ancient Caria, of which Halicarnassus ultimately became the capital, was in historical times a province on the western coast of Asia Minor; bounded by Ionia on the north, Phrygia on the north-east, and on the east by Lycia and Milyas. On the west and south the sea was its frontier.

The history of Caria can be best understood by the study of its physical features. The coast is indented by gulfs running far inland, which afforded great facilities and protection for early navigation. Along these shores are a number of sheltered spots convenient for the formation of small maritime settlements, but the greater part of the coast is separated from the interior by a barrier of rocky mountains, which an invader could only penetrate through easily defended passes.[a]

The origin and early history of the races who are said to have first occupied Caria is involved, by the admission of the ancients, in much uncertainty. It

[a] The perils of making war in Caria are recorded in a proverb preserved by the scholiast on the Equites of Aristophanes, p. 350:—

Πολλοὶ στρατηγοὶ Καρίαν ἀπώλεσαν,

as cited by Ste. Croix,—Mémoires de l'Institut, Classe d'Hist. Paris, 1815, ii. p. 562. I cannot, however, find this line in the scholiast.

is possible that the Phœnicians may have made some settlements there when they colonized Rhodes;[b] but the two races whom Hellenic tradition represents to have been the first inhabitants of this country, are the Carians and the Leleges. Of these, the Carians claimed to be one of the indigenous races of Asia Minor—a belief which they expressed in the mythical statement, that Kar was the brother of Lydus and Mysus, and that on account of this kinsmanship the Lydians and Mysians had a right to worship in the temple of the Carian Zeus at Mylasa.[c]

According to Herodotus, who, as a native of Halicarnassus, must have been well acquainted with the popular legends of his country, the Carians were once a maritime race, spread over the islands of the Ægæan under the name of Leleges.[d]

The statement that these two primeval races were identical, may be doubted, because it is at variance with the views of other ancient authors: but the occupation of many of the Cyclades at a very early period by the Carians is distinctly asserted by Thucydides,[e] who adduces as a proof of it the fact, that when the Athenians, under the direction of Pisistratus, purified Delos by removing all the sepulchres from that sacred island, it was noticed

[b] Cramer, Asia Minor, ii. p. 165, quotes in support of this view, Athenæus, iv. p. 174, who remarks that Erinna and Bacchylides applied the name Phœnice to Caria.

[c] Herod. i. 171. Strabo, xiv. p. 659. The tomb of Kar was shown at Syangela, an ancient town of the Leleges, in Caria.—Steph. Byzant. *s. v.* Σύαγγελα.

[d] Herod. i. 171. [e] i. 8.

that more than half the graves belonged to the Carian nation.

While occupying the islands, they became celebrated for their skill and enterprise in navigation;[f] but, like most early maritime races, were notorious pirates.[g] It was doubtless for this reason that they were forcibly transferred by Minos from the islands to the continent of Asia, where, however, he still retained them as his vassals, availing himself of their nautical skill in his maritime expeditions. At this period, as we are informed by Herodotus,[h] the Carians were by far the most celebrated of the existing nations; they excelled in the manufacture of arms, and the Greeks ascribed to them the invention of crests, and of the devices and handles of shields.

This tradition shows that from a very early time they had that aptitude for a military life which is their characteristic all through Greek history. As early as 700 B.C.,[i] and to a much later period,[j] they were much employed as mercenaries,

[f] See the authorities quoted, Heyne, Comment. supra Epoch. Popul. Θαλαττοκρατ. Nov. Comment. Soc. Gotting. i. p. 80; cf. ibid. Comment. Post. p. 57.

[g] Metrod. ap. Athen. xv. 12.

[h] Loc. cit. Cf. Alcæus and Anacreon, as cited by Strabo, xiv. p. 661.

[i] This is proved by the well-known line of Archilochus, Fr. 20—

Καὶ δὴ 'πίκουρος ὥστε Κὰρ κεκλήσομαι.—Cf. ibid. Fr. 78.

[j] According to Ephorus, as quoted by the scholiast to Plato Fragment. Hist. Græc. ed. Müller, p. 239, the Carians were the first nation who are recorded to have served as mercenaries. Compare Ælian, De Nat. Anim. xii. § 30.

Herod. v. 119, remarks of the Carians, as a distinguishing feature

and their reckless and brute courage gave rise to a proverb: Ἐν Καρσὶ κινδυνεύειν.[k]

Whatever amount of credit may be due to the assertion that they once occupied the islands, it is certain that Homer considered the Carians as an Asiatic race. In his catalogue they are enumerated among the allies of Priam, and he describes them as inhabiting Miletus, the Mæander, and Mount Mycale.[l] In the same passage he styles them βαρβαρόφωνοι, an epithet the precise meaning of which has been much disputed. As it is quite certain that the Carian language was considered distinct from the Hellenic in historical times,[m] there can hardly be a doubt that Homer meant

of their character, that they sacrificed to Zeus Stratios, the god of armies.

[k] Eurip. Cyclop. 654.

[l] Il. B. 867.

> Νάστης αὖ Καρῶν ἡγήσατο βαρβαροφώνων,
> Οἳ Μίλητον ἔχον, Φθειρῶν τ' ὄρος ἀκριτόφυλλον,
> Μαιάνδρου τε ῥοὰς, Μυκάλης τ' αἰπεινὰ κάρηνα.

[m] In the time of Xerxes a native of Caria would not have been understood by those of Greece. (Herod. viii. 135.) Strabo thinks that the epithet in Homer rather expresses the harsh and defective pronunciation of the Carians than the fact that they spoke a language different from the Greek; but he at the same time admits that the Carian was a distinct language, by the observation, Ἡ γλῶττα τῶν Καρῶν . . . . πλεῖστα Ἑλληνικὰ ὀνόματα ἔχει κατα-μεμιγμένα, ὡς φησι Φίλιππος ὁ τὰ Καρικὰ γράψας. See the remainder of this passage, xiv. p. 662.

Stephanus Byzantinus gives several specimens of Carian words. The name Σουάγγελα he states to be composed of two words: Σοῦα a tomb, and γέλας a king.

So again, the name Ἀλάβανδος, the founder of Alabanda, he declares to be the same as ἱππονίκος—ἄλα meaning a horse, and

to draw attention to this fact by the epithet which he has attached to the race.

The Leleges, who are associated with the Carians as the earliest occupants of Caria, were like them and the Pelasgi, a præ-Hellenic race of nomad character, which at one time inhabited Laconia, many parts of Greece proper, and much of the west coast of Asia Minor. According to a statement of Herodotus,[n] which has been already referred to, the Leleges occupied the islands conjointly with the Carians; and he appears to consider the two races as identical. It seems, however, quite certain that they were originally distinct, though they may have been blended together in particular districts.[o] Like the Carians, the Leleges were pirates, and must have been expelled with them from the islands by Minos. Termera, on the coast of Caria, was a stronghold of this people, from which they used to invade the opposite shore of Cos on rafts.[p] In Homer the Leleges, like the Carians, appear as auxiliaries of the Trojans.[q]

Strabo states[r] that the Leleges once held Caria as far as Myndus and Bargylia, and much of Pisidia,

βάνδα a victory. But this is obviously pueril ephilology; for the termination *ανδα* is characteristic of Carian names of towns.

On the Carian language, see Jablonski, Opuscula, iii. p. 95, where the scanty particulars known of this tongue are collected.

[n] i. 171.

[o] Strabo, vii. p. 321. See the note on Herod. i. 171, Rawlinson's Translation.

[p] Philip. Theang. apud Fragm. Hist. Gr. ed. Müller. iv. p. 475.

[q] Il. x. 428.

[r] xiii. p. 611. Cf. ibid. xii. p. 570.

but were afterwards broken and dispersed by the Carians. This must have been a gradual process, for in the time of Mausolus they had still eight towns left near Halicarnassus. Ultimately, they seem to have become a subject race, standing in the same relation to the Carians as the Helots to the Spartans, or the Penestæ to the Thessalians.[s]

Their tombs and fortifications could be distinguished from those of the Carians in the territory of Miletus and in Caria down to a late period.[t]

Herodotus notices in Caria a third people, whom he conceives to have been indigenous there, from the peculiarity of their customs. These were called the Caunians, who occupied a small district on the Lycian frontier.[u]

Their language, according to Herodotus, resembled that of the Carians, though which had borrowed from the other he does not undertake to decide.[v] He states that they had customs differing widely from those not only of the Carians, but of other nations generally; as, for instance, in their banquets, where societies of different ages and sexes met. At one time they erected temples to foreign gods, but afterwards, changing their mind, expelled them by a solemn act, in which the whole population

[s] Philip. Theang. loc. cit. [t] Strabo, vii. p. 321.

[u] The position of Caunus has been identified by an inscription (Geograph. Journal, xii. p. 158). It was situated on the stream which forms the outlet of the lake Kujez.—See Herod. i. 172, Rawlinson's Translat. Note 8.

[v] i. 172. Προσκεχωρήκασι δὲ γλῶσσαν μὲν πρὸς τὸ Καρικὸν ἔθνος, ἢ οἱ Κᾶρες πρὸς τὸ Καυνικόν· τοῦτο γὰρ οὐκ ἔχω ἀτρεκέως διακρῖναι. The meaning of this passage is not very clear.

took part, determining thenceforth to worship only the deities of their country. The tradition of the Caunians themselves was that they came from Crete, which seems to be confirmed by the custom of general banquets, or *syssitia*.[w]

On the Persian invasion of Caria by Harpagus, the Caunians distinguished themselves, like their neighbours the Lycians, by their desperate resistance,[x] and they joined the Ionians in their revolt against Darius, after the burning of Sardis.[y]

They are mentioned from time to time in ancient history as late as the time of Cicero,[z] but always as a people distinct from the Carians.

In the course of the early colonization of Asia Minor by the Greeks, the Carians and Leleges were gradually dispossessed of the most desirable maritime positions along the western coast. Thus the Ionians drove out the native Carians from Ephesus, Miletus, Mycale, and Myus, while the Dorians established themselves to the south, at Iasus, at Myndus, Halicarnassus, Cnidus, and in the Triopian peninsula.

With reference to the foundation of Halicarnassus, several traditions have been preserved. According to Herodotus, this his native place was a colony of Dorians from Trœzen.[a] He omits to name the founder who, according to Strabo,[b] was Anthes, son of Poseidon, who left Trœzen when a

[w] See, however, Hoeck, Kreta, ii. pp. 312-13, who doubts the derivation of this kind of banquet from the Cretans.

[x] Herod. i. 176. [y] Ibid. v. 103. [z] Ad Q. Fr. i. 1—11.

[a] vii. 99. [b] xiv. p. 56; viii. p. 374.

son of Pelops established himself there. Pausanias assigns a much later date to the colony, which he says was founded by the descendants of Aetion, son of Anthes, many years after the time of that hero.[c]

Vitruvius states that the colony was a joint one sent from Argos and Trœzen, and headed by Melas and Areuanias.[d] An inscription found at Halicarnassus[e] contains a list of the priests of Poseidon at that place. The series commences with Telamon, son of Poseidon. Anthes, grandson of Telamon, and son of Halcyoneus, is seventh in the list.

These discrepancies of tradition in reference to the foundation of Halicarnassus may be explained by supposing that the original Dorian colony was strengthened by successive emigrations.[f]

Such reinforcements would probably be needed to maintain the settlement in the midst of the hostile territory of the Carians and Leleges.

I am inclined, therefore, to think that the joint colony under Melas and Areuanias is probably the latest of all the emigrations, and that it is the same as that which Pausanias states to have been conducted by the Antheadæ, at a period long after the time of Anthes. This later emigration probably

[c] πολλοῖς ἔτεσιν ὕστερον.—ii. 30, 8.

[d] Vitruv. ii. 8. Mel. i. 16.

[e] Boeckh, Corpus Inscript. No. 2655.

[f] On the date of the foundation of Halicarnassus, see Boeckh, C. I. on the inscription No. 2655, already quoted; Müller, Dorians, i. p. 123, Engl. trans. 1st edit.

took place within historical times; while the date of the original colony under Anthes must be regarded as belonging to the uncertified record of the mythic past; though the belief in such a tradition must have been strong among the people of Halicarnassus, inasmuch as they called themselves Antheadæ, in the same manner as the Athenians called themselves Cecropidæ.[g]

Such a second colonization certainly took place in the neighbouring settlement of Iasus. Here the original colonists, according to Polybius, were Argives; but, in consequence of the losses which they sustained in a war with the Carians, they invited the aid of the Ionians from Miletus, under the leadership of the son of Neleus.[h]

The original settlement of the Argive colony at Halicarnassus was on a small rocky island, now united to the mainland by a sandy isthmus. This island was originally called Zephyria; the name Isthmus, by which it was also known, must have been given to it after it was united to the continent by the accumulation of sand from the sea, an event which took place some time before the date of Pliny.[i]

Vitruvius states[j] that on the establishment of the joint colony under Melas and Areuanias, the barbarous natives constantly harassed the new settlers with predatory incursions, till one of the colonists

[g] Steph. Byzant. *s. v.* Ἀθῆναι.

[h] Polyb. xvi. 12.

[i] Steph. Byzant. *s. v.* Ἁλικαρνασσός. Strabo, xiv. p. 656. Plin. Nat. H. ii. 91.

[j] Loc. cit.

succeeded in opening a trade with these fierce marauders at the fountain Salmacis. Subdued by the civilizing influence of commerce rather than by the arms of the colonists, the Carians and Leleges gradually learnt to adopt the more orderly and peaceable habits of Greek life. Now, it is a curious confirmation of this story, that in an inscription discovered by me at Budrum, and which will be more fully noticed hereafter,[k] a decree is made out in the joint names of the Halicarnassians and Salmacians; from which fact it may be inferred that two distinct people were united at Halicarnassus in one civil community. The date of this inscription, as I shall show from internal evidence, is probably about B.C. 440.

Salmacis is mentioned by Stephanus Byzantinus[l] as a town in Caria; and it is probable that the people of this name, mentioned in the inscription, consisted of partially civilized Carians and Lelegians, and that they dwelt round an Acropolis on the rocky promontory now called Caplan Calessy, opposite to the Doric settlement in the island. After the separate existence of the native town had been merged in that of Halicarnassus, the Acropolis of Salmacis was still retained, and formed, as will be subsequently shown, one of the two principal citadels of Halicarnassus, the other being in the island.[m]

It is probable that such an association as I have

[k] Appendix, No. 1.

[l] *S. v.* Σαλμακίς, πόλις Καρίας, τὸ ἐθνικὸν Σαλμακίτης, κ. τ. λ.

[m] This will be more fully shown in the chapter of this work which treats of the topography of Halicarnassus.

supposed to exist between the Greek colony of Halicarnassus and the native town of Salmacis was not uncommon in the earlier Greek settlements, because it was their usual practice to establish themselves on some rocky peninsula or island close to the mainland, where the nature of the coast afforded them the double advantage of a secure harbour and a position of great natural strength.[n]

It was thus that at Emporiæ in Spain, colonized by Phocæans from Massilia, the original Greek settlement, afterwards called the "Old Town," was built on a small island, whence the colonists passed to the mainland. Here, too, a double city grew up; the Greek town on the coast, and an Iberian settlement of the tribe of Indigetes on the mainland.[o]

Ultimately, these settlements were amalgamated into a Roman colony.

At a very early period in the history of Halicarnassus we find it taking part in a league of six Dorian cities, called the Doric Hexapolis. The other five cities composing this confederation were Cos, Cnidus, Lindus, Camirus, and Ialysus.

[n] Grote, Hist. of Greece, iii. pp. 234, 237, 240.

At Ephesus, the Greek settlers under Androklos drove out the native Lydians and Leleges, who held the upper city. A few of the inhabitants of a different origin were allowed to remain, receiving an allotment of land. (Pausan. vii. 2, 4.) At Miletus, the Cretan colonists allowed the Carians, who had previously dwelt there, to become their *σύνοικοι*; but the subsequent Ionian settlers, under Neleus, put the whole male Carian population to the sword, and compelled the Carian women to marry them.—Herod. i. 146; Pausan. vii. 2, 3.

[o] See Smith's Dict. of Geogr. *Emporiæ.*

The assemblies of this league were held on the Triopian promontory at Cnidus, in the temple called Triopium, where games in honour of Apollo were celebrated.

Some time before the Persian war, the people of Halicarnassus were excluded from the Triopian league by the act of one of their citizens, Agasikles, who, contrary to custom, took to his own home the tripod adjudged to him as a prize in these games, instead of dedicating it to the god. The other five cities punished this offence by excluding Halicarnassus from their confederacy, which was from that time called the Doric Pentapolis.[p] At what time this incident took place we do not know, except that it was before the time of Herodotus. It seems probable, as Mr. Grote remarks, that the increasing predominance of the Carian element at Halicarnassus contributed to its exclusion from this league.[q]

From the geographical position of the six cities forming the Hexapolis, much of the trade between Egypt and the western coast of Asia Minor must have passed through their hands; and it is, therefore, probable that their league had a commercial object. In the Hellenium, or federal temple established at Naucratis, in Egypt, in the time of Amasis, all the cities which were members of the Hexapolis had a share, except Cos.[r]

As the Dorian settlements in Caria grew more powerful through extended trade, they would pro-

[p] Herod. i. 144. [q] Hist. of Greece, iii. p. 275.
[r] Herod. ii. 178. Baehr in loc.

bably acquire territory in their immediate neighbourhood. The Cnidians thus seem to have gradually possessed themselves of the peninsula on the extremity of which their colony was situated.

As these new settlements grew up, the native population must have retired before them into the interior, where, from the mountainous nature of the country, they could maintain themselves in strong positions. They appear to have dwelt in hill fortresses, and in small towns or villages (*komæ*), united in confederacies. One of these groups of *komæ*, called Chrysaorium, had their federal meeting at the Temple of Zeus Chrysaorius, near the spot where Stratonicea was founded after the Macedonian conquest.[s] The Temple of Zeus Stratios, at Labranda, was probably the centre of another similar confederacy.

As the kings of Lydia extended their dominions southward, Caria fell into their hands.

According to a curious tradition preserved by Plutarch,[t] Gyges was aided in his contest with Candaules by Carians under Arselis, who, after

[s] Strabo, xiv. p. 660. Euromus included other towns in its district (Polyb. xxx. 5; cf. Livy, xlv. 25), and may have been the metropolis of a third confederacy. Mylasa, as we learn from Strabo, xiv. p. 659, was once a κώμη, and probably belonged to the district of Euromus.

[t] Quæst. Græc. xlv. The battle-axe, Plutarch states, had been taken in battle from the Amazon Hippolyte, by Hercules, and given by him to Omphale, from whom it had been handed down through the Lydian dynasty. The kinsmanship which the Carians claimed with the Lydians has already been noticed. The battle-axe was called in the Lydian language *Labrys*; whence, apparently,

defeating Candaules, carried off a celebrated battle-axe, which had been handed down as an heirloom in the Lydian dynasty from the time of Omphale, and which Arselis dedicated to the Zeus Stratios at Labranda. This tradition seems to indicate some early success of the Carians against the Lydians; they were, however, conquered by Crœsus, who appears to have invaded them in the lifetime of his father Halyattes.[u]

In some part of the seventh century B.C., a body of Carians and Ionians, bound on a piratical expedition, were forced to land in Egypt. The king of that country, Psammetichus the First, then at war with eleven other kings, enlisted these new comers as mercenaries, and, with their aid, conquered his enemies.

These adventurers were then established in Egypt as a distinct body of troops, quartered apart from the native army, and their descendants remained in the country as mercenaries till the conquest of Egypt by Cambyses, when they made an obstinate resistance.[v] In the time of Apries, the number of

the name of the place of its dedication,—Labranda. The termination *anda* belongs to so many names of places in Caria, that it is probably expressive of locality.

[u] Herod. i. 28. Nicol. Damasc. Fr. 65. ap. Fragm. Hist. Græc. ed. Müller, iii. p. 397. Xanthus, Lyd. *ibid.* i. p. 40.

[v] Herod. ii. 152, 154; iii. 11. Polyæn. vii. 3, states a quarter of Memphis was called Καρομεμφῖται, because the Carians dwelt there. The employment of these mercenaries by Psammetichus is further attested by a most ancient inscription cut on the leg of a colossal statue at Aboo-Simbel, in Nubia.—See Boeckh, C. I. No. 5126.

these Carian and Ionian mercenaries was 30,000.[w] It is evident, therefore, that a succession of emigrations from Asia Minor to Egypt must have taken place after the first landing of Carians and Ionians in the reign of Psammetichus I.

On the transfer of the empire of Crœsus to Cyrus, Caria passed into the hands of his general Harpagus, without any resistance on the part either of the natives or the Dorian settlers, except in the case of the inhabitants of Pedasus, who fortified themselves on the mountain-side which overlooks the Ceramic gulf. The Caunians made a still more desperate resistance.[x]

In the division of the Persian dominions, subsequently made by Darius, the Carians formed part of the first Nome of the empire, which comprehended Æolis, Ionia, Lycia, the Milyans, and Pamphylia.[y]

In the Ionian revolt, B.C. 499, the greater part of the Carian nation made common cause with the Asiatic Greeks, and offered a brave resistance to Daurises, the Persian general. When they were first collected together on the frontier to resist this invader, one of their leaders, Pixodarus, son of Mausolus, proposed that they should cross the Mæander, and give battle to the Persians with that river in their rear, thinking that they would offer a more obstinate resistance if they fought with the knowledge that their retreat was cut off. This counsel, however, which Herodotus thinks would

[w] Herod. ii. 163. Diod. i. 68.
[x] Herod. i. 176.
[y] Id. iii. 90.

have been the best, was not adopted by the Carians, who made their first stand against the Persians on the river Marsyas. Here they fought bravely, resisting for a long time, but at length being overpowered by numbers. Their loss in this battle is reckoned by Herodotus at 10,000 men, that of the Persians at 2,000. The Carians then retreated to the Temple of Zeus Stratios at Labranda, situated on a mountain near Mylasa.[z] Here having been joined by the Milesians and other allies, they fought a second battle with the Persians, and were defeated with great loss.[a]

After this, Daurises advancing into the interior of the country to take their cities, one by one, the Carians laid an ambuscade for him in the mountainous region of Pedasus, near Mount Lide, and cut off the whole Persian army at night. The commander of this ambuscade was Herakleides, son of Ibanolis of Mylasa, who, it is to be presumed, was the brother of Oliatus, tyrant there at the time of the Ionian revolt.

The capture of Miletus, B.C. 494, deprived the Carians of their Greek allies, and their whole country was conquered by the Persians, some of the cities submitting voluntarily, others being reduced by

[z] The site of this temple will be described in a subsequent chapter.

[a] Herod. v. 118, 120. In joining the Milesians in the Ionian revolt, the Carians are said to have acted contrary to the advice of the oracle of Apollo—it is to be presumed the Delphic one, which, on being consulted on this occasion by the Carians, gave the celebrated answer: *πάλαι ποτ' ἦσαν ἄλκιμοι Μιλήσιοι.*—Schol. in Aristoph. Plut. l. 1002, ed. Didot, p. 376.

force. The mountainous parts of the territory belonging to Miletus were given to Carians from Pedasus.[b]

It was the policy of Darius, on the suppression of the Ionian revolt, to destroy the spirit of independence in the Greek cities of Asia, by encouraging and supporting everywhere the petty despots or tyrants, who were easily made subservient to the court of Susa.[c] Such a dynasty was that of Lygdamis at Halicarnassus.

It is not certain when the rule of this family commenced; but, as we are told by Herodotus that in the time of Xerxes, Artemisia, the daughter of Lygdamis, became tyrant of Halicarnassus after her husband's death, it is to be inferred that she succeeded to his rule.[d] The historian, however, does not distinctly state this. Herodotus also omits to give the name of the husband of Artemisia, whom modern writers, on the somewhat doubtful authority of a passage in Suidas, call Mausolus.[e] Artemisia

[b] Herod. vi. 20.

[c] See Diodorus, xvi. 42, for the system which the Persians established in Cyprus, before the revolt of that island in the time of Artaxerxes. Ἐν γὰρ τῇ νήσῳ ταύτῃ πόλεις ἦσαν ἀξιόλογοι μὲν ἐννέα, ὑπὸ δὲ ταύτας ὑπῆρχε τεταγμένα μικρὰ πολίσματα τὰ προσκυροῦντα ταῖς ἐννέα πόλεσιν· ἑκαστὴ δὲ τούτων εἶχε βασιλέα, τῆς μὲν πόλεως ἄρχοντα, τῷ δὲ βασιλεῖ τῶν Περσῶν ὑποτεταγμένον.

[d] Herod. vii. 99.

[e] Suidas, *s. v.* Πίγρης, the supposed author of the Margites, whom Suidas describes as Καρ, ἀπὸ Ἁλικαρνασσοῦ, ἀδελφὸς Ἀρτεμισίας, τῆς ἐν τοῖς πολέμοις διαφανοῦς, Μαυσώλου γυναικός. Eckhel, Doctr. Num. Vet. ii. p. 596, and Boeckh, C. I. ii. p. 470, No. 2691, follow the authority of this passage in stating Artemisia to be the wife

was of Halicarnassian origin on the father's side, her mother was a Cretan. She joined Xerxes in his expedition against Greece, and commanded a contingent of five ships from Halicarnassus, Cos, Nisyros, and the Calydnian islands, at the battle of Salamis, where she played a most distinguished part, not only by the dexterity of her exploits during the battle, but also by the excellent counsels which she gave the Persian king.

Before the engagement, Artemisia advised Xerxes not to risk a battle at sea with an enemy so much more skilled in naval warfare; and she pointed out to him that in his fleet contingents such as the Egyptians, Cypriotes, Cilicians, and Pamphylians, would be useless in action. Her advice was that the fleet should be left at Salamis, and that the king should march into the Peloponnese by the isthmus of Corinth. He would thus find the Greeks an easy conquest. This counsel, being contrary to that of the majority of his captains, was not followed by Xerxes.[f]

Herodotus, in his account of the naval action which ensued, has given special prominence to the part taken in it by Artemisia, which is not unnatural, considering that Halicarnassus was his native place.

The Athenians seem to have been surprised at

of Mausolus the First. If Suidas has not made a mistake between the first and second Artemisia, as seems most probable, the Mausolus whom he names, may be the same as the father of Pixodarus, Herod. v. 118.

[f] Herod. viii. 68, 69.

the presence of Artemisia in this battle: they felt aggrieved, says Herodotus, that a woman should make war on them.[g]

In the prowess of the Carian heroine, they may have been reminded of the exploits of those Amazons whose mythical invasion of the Attic territory was repelled by Theseus. In the Greek mind, the events of the actual Present were constantly connected with the mythical Past, as a series of causes and effects. Artemisia, as an Asiatic warrior, may thus have appeared to the superstitious mind of the Athenians as the avenger of Hippolyte, the Amazonian queen conquered by Theseus.

Such importance was attached to the capture of Artemisia, that a reward of a thousand drachmæ was promised to any one who could take her alive. She was hotly pursued by Ameinias of Pallene, but escaped by running down a Calyndian vessel, which formed part of the Persian fleet, and on board which was Damasithymus, king of the Calyndians.[h] This incident deceived her pursuers, who, in the confusion of the fray, imagined, on seeing Artemisia attack one of the enemy's ships, either that she had deserted from the king, or that they were mistaken in supposing her galley to belong to the Persian fleet. The collision with the Calyndian vessel seems

[g] viii. 93. *Δεινὸν γάρ τοι ἐποιεῦντο γυναῖκα ἐπὶ τὰς Ἀθήνας στρατεύεσθαι.* Compare the historian's own remark, vii. 99: *Τῆς μάλιστα θωῦμα ποιεῦμαι, ἐπὶ τὴν Ἑλλάδα στρατευσαμένης, γυναικός.*

[h] Apparently the same as Damasithymus, son of Candaules, whom Herodotus (vii. 98) classes among the most distinguished naval commanders at Salamis.

rather the result of stratagem than of accident, though Herodotus does not undertake to decide this question. He hints, however, that some misunderstanding may have taken place between Artemisia and Damasithymus at the Hellespont.

The manner of Artemisia's escape was noticed by Xerxes from his throne on the shore. He greatly applauded her prowess, imagining that the vessel she had sunk was one of the enemy's. It was on this occasion that he uttered the reproachful words, "My men have become women, and my women men." After the battle, Xerxes again consulted Artemisia, and was advised by her to return, leaving the command of the expedition to Mardonius. He afterwards sent her to Ephesus, giving her charge of some illegitimate children who had accompanied him to Greece.[i]

In the Icon Persike erected at Sparta from the spoils of the Persians, the statue of Artemisia in white marble was thought worthy to be associated with that of Mardonius and other Persians.[k]

From the high esteem in which the Carian queen was held by Xerxes, it is to be inferred that he found her a convenient instrument wherewith to subdue the Hellenic and mixed barbarian races in Caria and the adjacent islands, and gradually to bring them under one common despotism.

In speaking of the contingent which she contributed to the fleet of Xerxes, Herodotus says that she commanded (ἡγεμόνευε) the ships of the Coans,

[i] Herod. viii. 87, 88.

[k] Pausan. iii. 11, § 3.

the Nisyrians, and the Calydnians,[l] this latter being a group of islands, of which Calymna was the principal one.

Cos must have fallen under her influence, after Cadmus, who had succeeded his father, Scythes, there as *tyrannus*, voluntarily abdicated his rule. This abdication must have taken place shortly before the battle of Salamis.[m]

Of the history of Artemisia nothing further has been preserved, except a romantic story of her unrequited and fatal love and suicide, to be found in Photius,[n] and which may be fairly regarded as of a semi-mythical character. She left a son, Pisindelis; and Pigres, the reputed author of the Margites and of the Batrachomyomachia, was her brother, or, according to Plutarch, her son.[o]

We have no proof that the rule of Artemisia on the continent extended beyond the walls of Halicarnassus itself. We know that in the immediate neighbourhood were several small towns belonging to the Leleges, whose inhabitants were afterwards transferred by Mausolus to Halicarnassus, when he made it his capital.

A number of petty contemporary dynasts pro-

[l] See Boeckh, Staatshaushaltung d. Athener, — Berlin, 1851, p. 693, on the identity of the names Calydna and Calymna.

[m] Herod. vii. 164. Suidas, *s. v.* i. p. 482, as quoted by Baehr, in Herod. vii. 164.

[n] Phot. Biblioth. p. 153a, ed. Bekker.

[o] Suidas, *s. v.* Πίγρης. Plutarch, de Herod. Malign. xliii. Tzetzes, Exeg. in Iliad. ed. Hermann, p. 37. Procl. ap. Bekk. Schol. ad Il. p. i. as quoted by Mure, Hist. of Greek Lit. ii. pp. 361, 366.

bably ruled in Caria at this time, such as were Histiæus, son of Tymnes, tyrant of Termera;[p] Pigres, son of Seldomus, who probably ruled at Syangela;[q] and Aridolis, tyrant of Alabanda.[r]

Notwithstanding the encroachments of the Dorians on their coast, the Carians were still, up to this time, a seafaring people, and their love of maritime enterprise was well appreciated by the Persian kings. It was a Carian, Scylax, of Caryanda, who was sent by Darius son of Hystaspes to attempt the circumnavigation of Africa, and who, according to Herodotus, accomplished this passage.[s] At the battle of Salamis, the Carians contributed to the Persian fleet seventy ships, and Histiæus, son of Tymnes, and Pigres, son of Seldomus, are mentioned by Herodotus among the most distinguished naval commanders in the service of Xerxes. The Dorians of Caria only contributed thirty ships in this battle.

Pisindelis, according to Suidas, reigned after his mother, and at the date of the battle of Salamis, B.C. 480, was already a young man.[t] All that we know of Pisindelis is, that he was succeeded by his son Lygdamis, whose name has attained some celebrity from its connection with that of his distinguished fellow-citizens Herodotus and the epic poet Panyasis.

[p] Herod. v. 37; vii. 98. Waddington, Rev. Numism. 1856, pp. 55-6.

[q] Waddington, l. c. p. 58.

[r] Herod. vii. 195.

[s] Herod. iv. 44.

[t] Herod. vii. 99: Ἥτις, ἀποθανόντος τοῦ ἀνδρὸς, αὐτή τε ἔχουσα τὴν τυραννίδα, καὶ παῖδὸς ὑπάρχοντος νεηνίεω, κ. τ. λ.

According to the tradition preserved by Suidas, the historian, in consequence of the tyranny of Lygdamis, quitted Halicarnassus, emigrating to Samos, where he wrote his history.[u]

Panyasis, the epic poet, who belonged to one of the noblest families in Halicarnassus, is said to have been put to death by Lygdamis, about the time when Herodotus, to whom he was related, first withdrew to Samos.[v] The date of this event, according to Clinton,[w] was probably B.C. 457.

In the inscription to which I have already referred as containing a mention of the people of Salmacis, in association with those of Halicarnassus, we find the names of Lygdamis, of Apolonides, the son of Lygdamis, and of Phormion, the son of Panyasis.

Reference is made to a law passed during the period when Apolonides filled the office of *Mnemon*, or recorder, for the Halicarnassians; and when Phormion was, in like manner, *Mnemon* for the people of Salmacis. The name of Lygdamis occurs in the second line of the inscription thus:—

> Ἁλικαρνατ(έω)ν καὶ Σαλμακι(τ)έων
> καὶ Λύγδαμις ἐν τῇ ἱερῇ
> ἀγορῇ

---

[u] Suidas, *s. v.* Ἡρόδοτ. Ἡρόδοτος μετέστη δ' ἐν Σάμῳ διὰ Λύγδαμιν, τὸν ἀπὸ Ἀρτεμισίας τρίτον τύραννον γενόμενον Ἁλικαρνασσοῦ. Πισίνδηλις γὰρ ἦν υἱὸς Ἀρτεμισίας· τοῦ δὲ Πισινδήλιδος Λύγδαμις.

[v] Suidas, Πανύασις. Γέγονε γὰρ Πανύασις Πολυάρχου, ὁ δὲ Ἡρόδοτος Λύξου, τοῦ Πολυάρχου ἀδελφοῦ. . . . . Ὁ δὲ Πανύασις γέγονε κατὰ τὴν οη' Ὀλυμπίαδα . . . . ἀνῃρέθη δὲ ὑπὸ Λυγδάμιδος τοῦ τρίτου τυραννήσαντος Ἁλικαρνασσοῦ.

[w] F. H. ii. p. 49.

Immediately after this follow the date of the month, and the name of the Prytanis, or eponymous magistrate, during whose term of office the law was passed.

Unfortunately, we have not the first line of this inscription, so that it is not possible to ascertain why the name of Lygdamis is introduced, as it is, in the preamble of a law; but, from its connection with the names of the two cities which it follows, and from the whole context, I am inclined to think that the law was either moved by Lygdamis, or ratified by him conjointly with the people of Halicarnassus and Salmacis. The law itself relates to certain real property, and to the legal means which may be employed to dispute the title of the actual owners. It is not improbable that the real property referred to was that of political exiles which had been confiscated. It is enacted, that any person attempting to rescind the law is to be punished by exile and the loss of all his property, and that, if he does not possess the value of ten staters, he is himself to be sold as a slave for exportation, and never to be allowed to return to Halicarnassus.

The severity of this penal clause against rescinding the law would lead us to suppose that it was passed in troublous times, such as was the reign of Lygdamis; and the form of the letters in the inscription is not inconsistent with this date, to which I am further disposed to assign it from the occurrence of the name Panyasis.

According to the statement of Suidas, already referred to, Lygdamis was driven out of Halicar-

nassus by Herodotus, who afterwards, however, incurred the jealousy of his fellow-citizens, and retired to Thurium. The date of his voluntary exile is assigned by Clinton to the year 443 B.C.[x]

These scanty particulars, preserved by a late compiler, are all that is known of the history of Lygdamis, nor have we any means of ascertaining what form of government was substituted for his arbitrary rule at Halicarnassus. We learn, however, from Thucydides[y] that the Carians on the coast, together with the Dorian settlers there, paid tribute to Athens at the commencement of the Peloponnesian war, and in the lists of these tributaries given in inscriptions recently found at Athens, the name of Halicarnassus frequently occurs, between the dates 447 and 413 B.C.[z] About this time Aristophanes alludes to the Carians as mountaineers, dwelling in hill fortresses,[a] and henceforth they are mentioned in Greek history rather as mercenary soldiers, than collectively as a nation. The mountainous character of their country probably was one inducement for them to serve as mercenaries, as in the case of the Swiss and Scotch in modern times.

[x] F. H. ii. p. 54. Suidas, *s. v.* Ἡρόδοτ. Ἐλθὼν δὲ εἰς Ἁλικαρνασσὸν, καὶ τὸν τύραννον ἐξελάσας, ἐπειδὴ ὕστερον εἶδεν ἑαυτὸν φθονούμενον ὑπὸ τῶν πολιτῶν, εἰς τὸ Θούριον, ἀποικιζόμενον ὑπὸ Ἀθηναίων, ἐθελοντὴς ἦλθε.

[y] Thucyd. ii. 9. Καρία ἡ ἐπὶ θαλάσσῃ, Δωριῆς Καρσὶ πρόσοικοι.

[z] Boeckh, Die Staatshaushaltung der Athener,—Berlin, 1851, vol. ii. pp. 670-1. Compare p. 598, ibid. for the range of time over which these inscriptions extend.

[a] Aves, l. 292.

In the Athenian inscriptions which contain the lists of the Carian tributaries, the name of a ruler is associated with the name of a town or people only in the case of Syangela and perhaps Idyma. Hence it has been ingeniously argued that, at the time when these lists were inscribed (between B.C. 447 and B.C. 413), the petty despots in the Carian cities had been for the most part expelled, and democracies instituted in their room.[b]

Without laying too much stress on such negative evidence, we may consider the fact contended for, that the *tyranni* in Caria had been for the most part deposed in the latter half of the fifth century, as in itself exceedingly probable, for we know that the Athenians introduced in all the states to which their influence extended a democratic form of government. It is probable that they never succeeded in enforcing a claim for tribute from the towns in the interior of Caria, for in B.C. 428, Lysikles, an Athenian commander, sent to levy money on this coast, landed at Myus, and marched into the plain of the Mæander as far as a hill called Sandius, but was defeated and slain by the Carians and Anaiitæ.[c]

After Tissaphernes had been appointed satrap of Sardis, in the room of Pissuthnes, he was required

[b] Waddington, in the Rev. Numism. 1856, pp. 55-9, who quotes the following from inscriptions, Fragm. cv. Boeckh: Συαγγελῆς ὧν ἄρχει Πίτρης (qy. Πίγρης); Fragm. v. ibid. Πάκτυης Ἰδυμ(ῆς). The other fragments which Mr. Waddington quotes are less conclusive, as the reading which he proposes is conjectural. Compare Boeckh, Staatshaushaltung, ii. p. 733, p. 691.

[c] Thucyd. iii. 19.

by Darius Nothus to pay the full tribute at which his satrapy was assessed, and which, in the case of the Hellenic cities, he had been hitherto unable to collect, on account of the protection afforded them by Athens.[d]

The disastrous termination of the Sicilian expedition in B.C. 413, afforded Tissaphernes an opportunity of undermining Athenian influence on the coast of Asia Minor, by forming an alliance with the Lacedæmonians, with whose assistance he became possessed of Miletus, and soon afterwards attacked and took Iasus. This was an important achievement, as Amorges, the bastard son of Pissuthnes, who had revolted like his father, had taken refuge in this stronghold, and was captured with much treasure.[e] From the date of these events, and still more after the victory of Lysander, at Ægospotami, B.C. 405, Athenian influence must have declined in Caria, where Tissaphernes acquired extensive possessions. It is not certain whether this province was included in his satrapy; but such was probably the case with the Carian cities on the coast.[f]

After the death of Cyrus the Younger, B.C. 401, Tissaphernes was invested with all the authority which that prince had enjoyed in Western Asia. The growth of his power alarmed the Lacedæmonians, who, having destroyed Athenian influence in Asia, now wished to protect the Greek cities of the western coast against Tissaphernes.

It was in consequence of this that the Lacedæ-

[d] Thucyd. vii. 25. [e] Thucyd. viii. 5, 28.
[f] See Xenoph. Hellen. iii. 13, 14.

monian generals Derkyllidas and Agesilaus successively threatened an invasion of Caria, because the private property of Tissaphernes was situated in that district;[g] neither expedition, however, advanced beyond the plain of the Mæander.

About 395 B.C. Tissaphernes was put to death by order of the Persian king. He was succeeded in the satrapy of Western Asia by Tithraustes, who was superseded, B.C. 393, by Tiribazus; but neither of these satraps appears to have exercised so great an influence in Asia Minor as Tissaphernes.

In the year 387 B.C. the Greek cities in Asia were declared by the Peace of Antalcidas to be part of the Persian empire; and it is about this time we first hear of Hekatomnus as reigning in Caria.

[g] Xenoph. Hellen. iii. 2, § 12; iv. 11, § 12. Agesilaus, ch. i.

CHAPTER II.

HISTORY OF CARIA.

Hekatomnus, Prince of Caria — his Ancestors; his Birthplace. Mylasa. Enfeebled state of the Persian Empire. Revolt of Evagoras. Accession of Mausolus; his new Capital Halicarnassus; Incorporation of Leleges; his internal Administration; Conspiracies against him; his League with revolted Satraps; extent of his Dominions; his Maritime Power. The Social War. Great Wealth of Mausolus; his Public Works; his Death, B.C. 353; his Character. Accession of Artemisia; her successes against Rhodes; builds the Mausoleum; Artists employed; her Death, B.C. 351. Idrieus; his great power; assists Artaxerxes Ochus against Egypt and Cyprus; his Death, B.C. 344. Ada. Decline of the Carian dynasty. League of Cos, Chios, and Byzantium, B.C. 340. Expulsion of Ada by Pixodarus; his ambiguous Policy, and overtures to Alexander the Great; his Death, B.C. 335; his Son-in-law, Othontopates, made Satrap of Caria. Siege and Capture of Halicarnassus by Alexander the Great. Restoration of Ada. Caria assigned to Asander, B.C. 323. Character of the Princes of Caria; causes of their Power. Caria held by Antigonus till B.C. 301; afterwards subject to the Ptolemies. Inscriptions relating to those Princes. Caria passes into the hands of Antiochus the Great. Made a Roman province B.C. 129. Decay of Halicarnassus.

WHAT were the exact limits of the dominions of Hekatomnus in Caria, whether a portion of those dominions was hereditary, or whether Caria was assigned to him on a repartition of satrapies after the death of Tissaphernes, are points on which we have no sure information; nor can we ascertain whether this prince was in any way

related to the Lygdamid family, which, as we have seen, was expelled from Halicarnassus about sixty years before his time. It is stated by Strabo,[a] that the family of Hekatomnus was of Mylasian origin; and it is worthy of note that the Athenian orators and Lucian, in speaking of Mausolus, constantly call him the "Carian," a contemptuous mode of designation, which would hardly have been used, had he been of purely Greek race.

Further, the marriages between brothers and sisters which took place in this family are more in accordance with barbarian than with Greek feeling.[b]

It seems, therefore, probable that Hekatomnus was of Carian race, descended perhaps from a line of native princes who had reigned at Mylasa. Oliatos, the son of Ibanolis, who is mentioned by Herodotus as tyrant of Mylasa, B.C. 501,[c] may have

[a] xiv. p. 659. Ἱστορεῖται δὲ (Μύλασσα) κώμη ὑπάρξαι τὸ παλαιὸν, πατρὶς δὲ καὶ βασίλειον τῶν Καρῶν τῶν περὶ τὸν Ἑκάτομνον. Compare the inscription, Boeckh, C. I. 2691 c. Μανσσώλλῳ, ὄντι εὐεργέτῃ τῆς πόλεως τῆς Μυλασέων καὶ αὐτῷ καὶ τῷ πατρὶ Ἑκατόμνῳ καὶ τοῖς προγόνοις τοῖς τούτων, κ.τ.λ.

[b] Arrian notices this custom in the case of Idrieus and Ada, as being κατὰ τὸν νόμον τῶν Καρῶν (i. 23).

[c] He was one of the tyrants seized by Aristagoras at the commencement of the Ionian revolt. (Herod. v. 37.) The Herakleides, son of Ibanolis, who defeated the Persian commander Daurises (ibid. 121), was probably his brother and successor at Mylasa. Herodotus mentions a Pixodarus, son of Mausolus, of Kindya (ibid. 118), as one of the Carian leaders in the battle fought at the river Marsyas against the Persians, and states that he married the daughter of Syennesis, king of Cilicia. From the occurrence of the names Pixodarus and Mausolus in this family, it is possible that they were ancestors of Hekatomnus.

been one of his ancestors. The family of Hekatomnus may, however, have been allied by marriage with that of Lygdamis, and Hekatomnus would thus represent the pretensions of two princely houses, one Hellenic, the other indigenous. He is styled by Diodorus[d] dynast of Caria; and, though there is no evidence to show that he ever possessed Halicarnassus, such was probably the case.

His seat of government was at Mylasa, a town which from an early period seems to have been connected with the aboriginal traditions of Caria. Here, as has been already mentioned, in the time of Herodotus, was a temple sacred to the Carian Zeus, to the worship of which the Lydians and Mysians also, as kinsmen of the Carians, were admitted.

There was another temple to Zeus at Mylasa, in which he was worshipped under the name Ὀσογώ, which, as we are informed by Pausanias, was a Carian name, and seems to represent one of the original deities of the Carian race, who combined the attributes of Zeus and Poseidon.[e]

At Labranda, a few miles from Mylasa, was a

[d] Diodor. xiv. 98.

[e] Strabo, xiv. p. 659. Pausanias, viii. 10, § 3. On the three Carian types of Zeus, see Jahn, Ann. d. Inst. xiv. p. 209, *seq.*; Henzen, Bull. d. Inst. 1849, p. 187, *seq.* The identity of Zeus Osogo with Zeus Poseidon is maintained by Henzen and Jahn, on the following grounds. An inscription brought from Mylasa by Mr. Falkener, contains, according to Mr. Henzen's reading, a dedication by the priest Διὸς Ὀσογῶα, Διὸς Ζηνοποσειδῶνος. Mr. Henzen thinks that these latter words are added as a gloss on the Carian name Ὀσογῶα. The further connection between these two deities

most ancient temple of Zeus Stratios. This deity was represented under an archaic type, with the battle-axe, *labrys*, on his shoulder, which, as has been already noticed, was won in battle from the Lydians. A sacred way led from Mylasa to this temple for a length of sixty stadia; it was frequented by worshippers from all the country round, and the most distinguished inhabitants of Mylasa were chosen as priests for life of Zeus Labrandenos.

It has been already remarked that Labranda was probably, like Chrysaorium, the centre of a confederacy of native villages or *komæ*. It was here that the Carians rallied after their first defeat by the Persians under Darius at the Marsyas.

The importance attached to the worship of indigenous deities at Mylasa, shows that the Carian rather than the Hellenic element predominated in the population.

At the period when we first hear of Hekatomnus, the Persian empire had fallen into a state

may be inferred by a comparison of the passage in Pausanias, viii. 10, § 3, with one from Athenæus, ii. p. 42, A.

In the first of these passages it is stated that in the temple of Zeus Osogo at Mylasa, a salt spring burst forth, as at the Acropolis at Athens, and in the temple of Poseidon Hippios, in Arcadia. Athenæus, on the other hand, recounts the same prodigy in reference to the temple of Zeus Poseidon in Caria; by which it is to be presumed that he meant the same deity as Pausanias alludes to. On the copper coins of Mylasa occurs the symbol of the *labrys*, terminating in a trident at one end and in a crab at the other; which may indicate the Neptunian character of the Zeus Osogo, as Jahn supposes; or, perhaps, the fusion of the two types of Zeus Stratios and Zeus Osogo into one, according to a system of amalgamation common in the Roman period.

of disorganization, in consequence of the weak character of the reigning monarch, Artaxerxes Mnemon, and his war with his brother Cyrus the Younger. Hence we find satraps and tributary states throwing off their allegiance in succession in every part of the Persian empire. Hekatomnus was appointed commander of the fleet of Artaxerxes, when that monarch planned an expedition against Evagoras of Cyprus;[f] but, having been long disaffected towards Persia,[g] he not only failed to aid Artaxerxes in the command intrusted to him, but secretly supplied Evagoras with money to raise mercenary troops.[h]

According to the fragment of Theopompus, which has been cited above, Autophradates, satrap of Lydia, was associated with Hekatomnus in this expedition as general of the land forces. Now Lydia formed part of the satrapy of Cyrus, from B.C. 407 till his death, B.C. 401, when it was transferred to Tissaphernes. Tissaphernes held this satrapy till he was superseded by Tithraustes, B.C. 395, who in his turn was succeeded by Tiribazus, B.C. 393. This latter was for a time replaced by Struthas, but returned to his satrapy B.C. 388, and commanded the Persian fleet in the great expedition of Artaxerxes against Evagoras of Cyprus,

[f] Theopomp. Fragm. iii. apud Fragm. Hist. Græc. ed. Müller, i. p. 295. Diod. xiv. 98.

[g] Isoc. Panegyr. § 162, p. 74 *d*. Ἑκατόμνως δ' ὁ Καρίας ἐπίσταθμος τῇ μὲν ἀληθείᾳ πολὺν ἤδη χρόνον ἀφέστηκεν. This was B.C. 380, according to Clinton, F. H. ii. p. 286.

[h] Diod. xv. 2.

B.C. 386. If we could be sure that these names and dates represent the regular chronological succession of the satraps of Lydia, it follows that the expedition against Evagoras, in which Hekatomnus was associated with Autophradates, must have been before the appointment of Cyrus to this satrapy, B.C. 407; but the changes of satraps in the Persian empire at this time were so frequent, and our knowledge of its internal history is so imperfect, being almost entirely made up of incidental notices, that we cannot venture to fix the date of Autophradates to so early a period without collateral evidence. It may, however, be assumed that the appointment of Hekatomnus to the command of the Persian fleet took place before the peace of Antalcidas, B.C. 387, from the protection of which Evagoras was expressly withdrawn; and it seems, on the whole, more probable that Autophradates was satrap of Lydia some time between that event and the death of Tissaphernes, B.C. 395, perhaps during part of the interval from B.C. 393 to B.C. 388, when Tiribazus was called away from his satrapy. This would correspond with the date assigned by Mr. Grote for the first commencement of hostilities between Artaxerxes and Evagoras; namely, about B.C. 390.[i]

In the general disorganization of the Persian empire at the time, the treason of Hekatomnus

[i] History of Greece, x. pp. 28, 30, note 3. Compare Clinton, F. H. ii. p. 280. It is not certain whether the Autophradates, who is mentioned as satrap of Lydia, B.C. 365 (see *infra*, p. 43), is the same person. (See Rehdantz, Vit. Iphicr. p. 157.)

appears to have passed unpunished, and we learn from Isocrates[j] that he was still living in B.C. 380. His death is placed by Clinton[k] B.C. 377. He left three sons; Mausolus, Idrieus, and Pixodarus, and two daughters, Artemisia and Ada. He was succeeded by his eldest son, Mausolus.

At the epoch of the accession of Mausolus, the condition of Western Asia afforded a most favourable opportunity for the aggrandisement of the satraps. Since the peace of Antalcidas, the Hellenic cities of Asia Minor were abandoned by their ancient protectors Athens and Sparta, and, for the first time since the battle of Mycale, B.C. 479, the Persians were really masters of all the Greeks on the Asiatic coast.

The satraps lost no time in confirming their dominion. In all the cities which they suspected, they built citadels, and planted permanent garrisons;[l] thus gradually destroying those last rallying-points of liberty afforded by autonomous governments.

On the other hand, the feebleness and disorganization of the Persian empire were such that a powerful satrap could practically assert his independence, and could extend his dominions on every side, with no other check than the opposition of some neighbouring potentate as unscrupulous and more powerful than himself. During the latter

[j] Isocrates, Panegyr. § 162, p. 74 *d*. Clinton, F. H. ii. p. 286.

[k] Clinton, F. H. ibid.

[l] Grote, x. p. 34. Isocr. Panegyr. § 137, p. 68*e*. Τάς τε πόλεις τὰς Ἑλληνίδας οὕτω κυρίως παρείληφεν, ὥστε τὰς μὲν κατασκάπτειν, ἐν δὲ ταῖς ἀκροπόλεις ἐντειχίζειν.

part of his reign, Artaxerxes Mnemon exhausted the resources of the Persian empire in unsuccessful attempts to reconquer Egypt and Cyprus, and in his war with the Carduchians. Tiribazus, who had succeeded Tissaphernes in the command of Western Asia, was withdrawn from this important post, and, after having been long an object of suspicion to Artaxerxes, was finally detected in a conspiracy, and slain by order of the king. Ariobarzanes, who seems to have succeeded to the command of Tiribazus, in like manner revolted from Artaxerxes, B.C. 366. These circumstances explain the rapid growth of the power of Mausolus.

It was probably at an early period of his reign that he transferred the seat of his government from Mylasa to Halicarnassus. The reasons for this change were sufficiently obvious. Halicarnassus had many natural advantages, which gave it a claim to be the metropolis of Caria. The harbour, as has already been pointed out, was most conveniently situated in reference to the traffic along the western coast of Asia Minor, and could afford safe refuge in all weather. It is shut in to the south by the long island of Arkonnesus (Karada), which blocks up the entrance of the Gulf of Budrum, leaving only two narrow channels by which Halicarnassus could be approached, and thus forming a natural outwork to the harbour most valuable for naval operations, whether in attack or defence. On the land side, the position of Halicarnassus was naturally strong, and capable of being easily fortified, and the site had the further advantages of

an abundant supply of water, a fertile soil, and a climate so genial and tempered, that, to this day, Budrum may be considered one of the healthiest places in the Turkish empire.

The pine forests along the shores of the Ceramic and Iasic gulfs must have afforded in antiquity, as at this day, a ready and convenient supply of timber and pitch for shipbuilding.

Mylasa, on the contrary, the ancient residence of the family of Hekatomnus, was situated too far inland to profit by the commerce of the Archipelago. Its site was esteemed in antiquity an ill-chosen one for military defence, as the town was built at the foot of a steep hill, in such a manner as to be commanded by it.[m] Its climate was probably as inferior to that of Halicarnassus in ancient times as it is at the present day.

Mausolus persuaded the inhabitants of Mylasa to put a large sum in his hands, undertaking to spend it in building a wall for the defence of that city. He then evaded the promise, by alleging that the deity had forbidden him to proceed with his work, and retained the money in his hands. It is probable that the sum obtained by this device, was spent in improving his new capital.[n]

Halicarnassus, as has already been noticed, was originally built upon the island on which the Castle of St. Peter now stands, and afterwards extended to the mainland. Opposite to this island, on the west, is a steep rocky headland, now called Caplan

[m] Strabo, xiv. p. 659.

[n] Pseud. Aristot. Œconomic. § 14, ed. Goettling.

Calessy, and probably the site of the citadel of Salmacis. Between these two points the shore of the harbour sweeps round in a curve, rising gradually from the sea, towards the steep mountain ridge which shuts in the bay from the north.

This peculiar configuration of the site led Vitruvius[o] to compare its form to that of a theatre. Round the ancient city may still be traced a wall, which, as will be seen by reference to the Plan, Plate I., takes into its circuit every salient point and vantage-ground in the rocky heights to the north.

There can hardly be a doubt that this wall, if not that originally built by Mausolus, follows the lines of defence planned by him. On the west it runs down to the sea, so as to include the strong rocky headland of Caplan Calessy, and on the opposite side of the harbour it terminates in like manner on the shore a little to the east of the island. Mausolus, like Dionysius of Syracuse and other contemporary tyrants, took very good care to secure for his own residence the strongest position in the town. Somewhere on the isthmus which connected the island with the mainland, he built a palace in such a position that he had on his left a secret port, and could at the same time survey the whole circuit of the walls, the *Agora*, and the harbour.[p] The spot

[o] ii. 8.

[p] Compare the description of the harbours at Carthage. The inner harbour was reserved for ships of war. Just within its entrance was an island called Cothon (Κώθων), rising to a considerable elevation above the surrounding banks, and thus serving

where I have placed this palace in the Plan, is the only one which corresponds with the actual features of the site and with the description of Vitruvius. My reasons for so placing it will be given in a later chapter, where the topography of Halicarnassus will be discussed in detail. The remains of the mole by which the secret port was formed, exist to this day.

By reference to the Plan, it will be seen that the site of the palace of Mausolus was chosen with much judgment for military purposes.

To the east his position was covered by the city wall. In front of him was his arsenal and fleet, and behind him the strong citadel in the island, into which he could at any time retreat, as it was doubtless connected with the mainland by a drawbridge.[q]

To aggrandise and strengthen still more his new capital, Mausolus transferred to it the population of six out of the eight towns in which the Leleges had maintained themselves up to his time as a distinct people.[r]

the double purpose of a mask to conceal the harbour from without, and of an observatory for the port-admiral (ναύαρχος), who had his tent upon it, whence he gave signals by the trumpet and commands by the voice of a herald.—Smith, Dict. of Biograph. *Carthage.* Appian, Pun. 96, 127. Cf. Strabo, xiv. p. 653, about the arsenals at Rhodes.

[q] Compare the description of the manner in which Dionysius the Elder fortified himself in Ortygia,—Grote, x. pp. 636-7.

[r] Strabo, xiii. p. 611. Cf. Pliny, v. 29, who attributes the same incorporation of the six towns to Alexander the Great. Cramer, Asia Minor, ii. p. 183, thinks that he has mistaken the name of Alexander for that of Mausolus.

It has been already noticed that Salmacis, in the time of Lygdamis, appears to have been a separate town, though associated with Halicarnassus by some kind of league.

It was probably finally absorbed into the capital of Mausolus when he incorporated the towns of the Leleges, and its name retained for the citadel which had once formed its Acropolis.

The only two towns of the Leleges left by Mausolus were Syangela and Myndus. The former of these places was, probably, an Acropolis of great strength, which must have commanded the road from Myndus to Halicarnassus,[s] and of which the site is marked in the map of Caria which accompanies this volume. This Acropolis was probably connected by an ancient road across the mountains with Termera, which doubtless at this time was in the hands of Mausolus.

Myndus and Syangela were probably left undisturbed by Mausolus, because these two places, taken in connection with Termera, would form an important line of defence to check an enemy invading Halicarnassus from the west.

When Alexander the Great invaded Caria, Myndus was sufficiently strong to resist an attempt which he made to surprise it.

The incorporation of the Leleges, which was the act of Mausolus, marks the epoch of their absorption into the Carian race. Henceforth they appear no more as a distinct people.

[s] This site will be described in a later chapter.

It has been already noticed that their condition as a conquered race has been compared by the historian, Philip of Theangela, to that of the Helots at Sparta, or Penestæ in Thessaly.[t]

Three interesting decrees of the city of Mylasa, which have been discovered on that site, throw some light on the internal administration of Mausolus.[u] From these documents, of which the respective dates are, the 39th year of the reign of Artaxerxes Mnemon, B.C. 367; the 45th year of the same reign, B.C. 361; and the 5th year of the reign of Artaxerxes Ochus, B.C. 355, we learn, that, up to the latest of these dates, Mausolus ruled in Caria with the title of satrap.[v]

The earliest of these decrees is directed against one Araïssis, son of Thyssus, who had been convicted of conspiracy and slanderous accusation against Mausolus, and who was in consequence condemned to death, and his property confiscated. It is observable that, notwithstanding the virtual independence of the satraps at this time, some semblance of authority must have been retained by the Persian king in Caria; for in the decree his name precedes that of Mausolus, occupying the position where, in the decrees of autonomous states,

[t] See Plut. Quæst. Gr. 46, as to the condition of the Leleges in Tralles. After they had ceased to be a dominant race in that city, they were allowed to remain; but any one who slew a Lelex could escape the pollution of blood by paying a trifling fine.

[u] Boeckh, Corpus Inscript. No. 2691, *c. d. e.*

[v] Gellius, x. 18, rightly remarks, that though Cicero gives Mausolus the title of king, he was really a satrap. He is styled *τύραννος*, Pseud. Arist. Œconom. § 14, and *δυνάστης* by Diodorus.

the name of the eponymous magistrate usually occurs; and it is expressly mentioned that the capital condemnation of Araïssis is by virtue of a warrant from the king, the confiscation of the conspirator's property being decreed by the city of Mylasa, by vote of the *ecclesia*, ratified by the tribes, in accordance with the laws of the state. Moreover, the observance of such formalities in the confiscation of property, as are noted in this and the two following decrees, shows that, though the power of Mausolus may have been arbitrarily exercised, he could not altogether dispense with the traditional forms of legal procedure by which the life and property of citizens in Greek states were protected; and it would seem from this inscription that the power of inflicting capital punishment had never been formally conceded to him by the Persian king.

After having established himself in the strong position of Halicarnassus, we must suppose that Mausolus gradually extended his dominions, first over the whole of Caria, and then beyond its limits into neighbouring provinces; but the history of Asia Minor during this period is so fragmentary, that we are unable to present any continuous narrative of his reign.

About B.C. 365, Mausolus joined Autophradates, satrap of Lydia, in an attack on Ariobarzanes, then satrap of Phrygia, who had revolted from Artaxerxes, and they laid siege to Assus, whether with a view to re-establishing the authority of the Persian king, or for their own personal advantage. It is said that they were induced to desist by the personal influence of Agesilaus, who obtained from both of them pecuniary

aid for Sparta. On this occasion Mausolus commanded a force of a hundred ships, with which he also besieged Sestos, aided by Cotys,[w] king of Thrace.

A succession of revolts of satraps took place, the history of which is very obscure; but in B.C. 362, these rebellions appear to have ripened into a general league against the authority of Artaxerxes, in which Mausolus was associated with Autophradates and Orontes, satrap of Mysia, this latter being chosen as leader.

The combination was the more formidable, as Syria and Phœnicia appear to have joined it; and Tachos, native king of Egypt, was prepared to contribute his assistance; so that all the western coast, with its large revenues, was at once subtracted from the empire. Artaxerxes, however, succeeded in breaking the force of the league by corrupting two of its leading members, Orontes and Rheomithres.[x] How the other revolted satraps were dealt with is not recorded in history. According to Diodorus,[y] Mausolus accompanied Artaxerxes in his Egyptian expedition in this very year. He may, therefore, have been brought over to him on the breaking up of the league.

The close of the reign of Artaxerxes Mnemon was a period of confusion, during which Mausolus had many opportunities of aggrandising his dominions at the expense of his neighbours.[z] It may

[w] Xenoph. Enc. Ages. ch. ii. § 26, ed. Heiland. Lips. 1841. Polyæn. vii. 26. Grote, x. p. 405.

[x] Grote, x. pp. 497-8. Diodor. xv. 90, 91. [y] xv. 90.

[z] Diodor. xv. 90, describes him as πολλῶν ἐρυμάτων καὶ πόλεων

have been at this period that he possessed himself of Heraclea, near Mount Latmus, and made war on Pygela and Ephesus.[a]

From a passage in Polyænus, compared with one in Lucian, it appears that he attempted to obtain Miletus[b] by stratagem, but did not succeed. In an inscription found at Erythræ, in Ionia, by M. Lebas,[c] the people of that city decree that Mausolus shall be their *proxenos*, granting him the right of citizenship, and the other privileges attached to the *proxenia*. They further declare him to be their benefactor, and, in gratitude for the services he has rendered, decree that his statue, in bronze, shall be placed in their *Agora*, and a statue of Ar-

ἀξιολόγων κυριεύων, at the time of the general revolt against Artaxerxes.

[a] Polyæn. vii. 23, 2.

[b] Polyæn. vi. 8. Lucian, Dialog. Mort. xxiv.

About the year 1853, a number of silver coins were discovered at a place called Gherelli, distant about three hours to the north of Budrum, which in type and fabric resemble those of Miletus; and from their bearing the inscription EKA, have been thought to be coins of Hekatomnus. (See Mr. Waddington, Rev. Numism. 1856, pp. 60—62.) If this attribution be correct,—and, as may be inferred from their type and fabric, these coins were struck at Miletus,—that city may have fallen into the hands of Hekatomnus after the death of Tissaphernes.

But I am inclined to agree with Mr. Waddington, *loc. cit.*, in considering this attribution as doubtful. I would add that the coin of Hekatomnus from the Berlin collection, which he publishes (Pl. III. No. 3), though to be found in Eckhel, was not thought free from suspicion by that distinguished numismatist, the late Mr. Burgon; and an inspection of this coin some years ago gave me an unfavourable impression of it.

[c] Voyage Archéologique, ptie. v. § 1, p. 21. This work being at present incomplete, references to it cannot be satisfactorily given.

temisia, in marble, in the temple of Athene; also that a crown of gold of the value of fifty darics shall be presented to Mausolus, and one of the value of thirty darics to Artemisia. In this inscription he is honoured with the title of king (βασιλεύς). This decree may either have been passed some time during the great revolt of the satraps, when we know that Mausolus advanced as far as Mysia, or during the Social War, when he sent a contingent to Chios. Lebas prefers the earlier of these two dates.

In the conversation which Mausolus is supposed to hold with Diogenes, in one of Lucian's Dialogues of the Dead,[d] the Carian prince is made to boast that he subdued much of Ionia, and that his dominions comprised part of Lydia. There is no reason to doubt this general statement, as it is confirmed by the isolated facts which have been already presented to the reader.

The development of the naval power of Mausolus, which took place simultaneously with the extension of his dominions on the continent, gave him great influence in the islands along the coast of Asia Minor. He succeeded in substituting for the democratic government of Rhodes an oligarchy devoted to his interests, and sustained by the presence of a numerous body of his mercenaries.[e]

According to Lucian,[f] several of the islands were

[d] Lucian, Dialog. Mort. xxiv.

[e] Demosth. de Rhod. Libert. p. 191, § 3; p. 198, § 27; de Pace, p. 63, § 15. Grote, xi. p. 314.

[f] See the Dialogue already quoted.

subject to him. These would probably be the islands nearest to Caria,—Calymna, Leros, Nisyros, and Cos. The revolution in this latter island, by which several smaller towns were incorporated in a common capital, which took place B.C. 366, was probably brought about by the influence of Mausolus.[g]

From a passage in the anonymous treatise on Œconomics, attributed to Aristotle, we learn that Lycia paid tribute to Mausolus, and was ruled by his deputy Condalus.[h]

In B.C. 357 the Athenian confederacy, which had been established B.C. 378, was materially weakened by the defection of four important maritime states—Byzantium, Chios, Cos, and Rhodes. These four states joined in a league against Athens, of which Mausolus is said to have been the principal instigator, and in which he took an active part. The contest which this league carried on with Athens is called the Social War. The united forces of the four revolted states, aided by a reinforcement from Mausolus, assembled at Chios, and there sustained a combined attack by sea and land, in which the Athenians were completely repulsed, and Chabrias, the commander of their fleet, killed.[i] This war terminated B.C. 355 with a peace, in which the independence of the members of the league was acknowledged by Athens.

[g] Diodor. xv. 76.

[h] Pseud. Aristot. Œconom. § 14, where he is styled ὕπαρχος. On the system of subsatraps see Grote, ix. p. 290. The name Condalus seems an error in the MS. for Candaules.

[i] Diodor. xvi. 7.

From the Mylasian inscription already referred to,[j] we learn that in this same year a conspiracy was made against Mausolus on the occasion of his visiting the Temple of Zeus at Labranda, at the great annual festival. It is to be inferred, though this is not directly stated, that this plot was aimed against the life of Mausolus; the attempt was made within the temple itself, during the solemn sacrifice of the festival. The conspirators thus added to treason the crime of sacrilege. One of them, Manites, son of Pactyas, was killed on the spot with arms in his hands; another, Thyssos, the son of Syskos, was tried and convicted as an accomplice. It does not appear that he was punished with death; his property, and that of Manites, was confiscated by decree of the people of Mylasa for the benefit of Mausolus.

It is not improbable that the Pactyas, father of Manites here mentioned, was the Pactyas, tyrant of Idyma, whose name occurs in one of the Carian lists of tributaries to Athens, already referred to.

According to Vitruvius, the revenues of Mausolus were very large, and it is probable that the tribute paid by him to the king of Persia was only a nominal one. Some curious anecdotes have been recorded, showing the arts of extortion which he and his deputy, Condalus, practised in order to raise money from his Carian and Lycian subjects.[k] Much

[j] See *ante*, p. 42.

[k] Pseud. Aristot. Œconom. § xiv. xv. The stratagem by which Mausolus obtained money from the inhabitants of Mylasa already recorded. His deputy Condalus is said to have produced

of this wealth was probably expended in the embellishment of his new capital. It is to be inferred from the language of Vitruvius, in the passage already referred to (though it is not actually so stated by him), that the principal edifices of Halicarnassus, the temple of Mars with the Acrolithic statue by Leochares, the temple of Venus and Mercury, and the *Agora*, were built by Mausolus on first laying out the plan of the new city. His own palace, as we learn from the same author,[l] was built of tile, covered with a kind of stucco polished like glass, and with decorations in Proconnesian marble.

It is recorded of the astronomer Eudoxus that he visited Mausolus in the course of his travels.[m] Perhaps this visit was connected with the legislative changes which Eudoxus is said to have introduced in his native place,[n] Cnidus, which city, though we have no direct evidence to show that it was ever subject to Mausolus, must have been more or less under the influence of so powerful a neighbour, particularly if, as there is reason to believe, it was not fortified at this time.[o]

It has been already remarked (*ante*, p. 42), that

to the Lycians a forged mandate from the king of Persia, ordering their hair, which they liked to wear long, to be cut off, to supply the court of Persia with wigs. The Lycians, believing this feigned document, were glad to compound with Condalus for the loss of their hair, by paying a poll-tax instead.—Compare Polyæn. vii. 23.

[l] ii. 8, § 20.

[m] Diog. Laert. viii. 8, s. 2. Ἀλλὰ καὶ παρὰ Μαύσωλον ἀφίκεσθαι

[n] Plutarch. adv. Colot. xxxii. Diog. Laert. viii. 8, s. 3.

[o] Antiq. of Ionia, part iii. p. 8.

on an inscription found at Mylasa, which bears the date 355 B.C., Mausolus is still styled Satrap. His death took place about two years after this. It is to be presumed, therefore, that, whatever may have been his kingly pretensions beyond the limits of his own dominions, he never succeeded in completely emancipating himself from the authority of Artaxerxes in Caria itself.

Whether by right or sufferance, Mausolus exercised the privilege of coining money. The only extant specimens of his money are silver tetradrachms and drachms, which are perfectly Greek in character, though a little hard in style. The probable weight of the former was about 228.65 grains, corresponding to the weight of the contemporary tetradrachms of Rhodes.

On the obverse is a laureate head, full face, of Apollo, a type nearly identical with that of the contemporary coins of Rhodes.

On the reverse is the Zeus Labrandenus, with the battle-axe, *labrys*, on his shoulder, the symbol of Carian nationality.

Mausolus, according to a usage prevalent in his family, was married to his sister Artemisia. His death is fixed by Clinton[p] to the year 353 B.C.

The few historical notices and anecdotes which have been handed down to us concerning Mausolus do not give a very favourable impression of his character. So far as we can judge from this scanty evidence, he seems to have been a bold, crafty, and

[p] F. H. ii. 286.

unscrupulous despot, like most of the satraps, his contemporaries. In the dialogue already referred to, in which Lucian introduces him, he describes himself as a tall and handsome man, and formidable in war.

Artemisia only reigned two years. Of the facts of her reign we know but little; but she seems to have swayed the sceptre of Mausolus with a vigorous hand. Vitruvius[q] has recorded the remarkable stratagem by which she destroyed the fleet of the Rhodians, and became mistress of that island. It is probable that this took place immediately after the death of Mausolus. The Rhodians, who, as we are told, were indignant that all Caria should be subject to a woman, and who, probably, underrated their adversary, fitted out a naval expedition against Halicarnassus. On receiving intelligence of this danger, Artemisia got her fleet completely ready for action, and concealed it in the smaller or closed harbour, which, as we know from Vitruvius, was completely withdrawn from view. She then manned the city walls with the remainder of the inhabitants. The Rhodian fleet was allowed to enter the great harbour without any resistance; the citizens on the walls received the enemy with cheers, and made a feigned offer of betraying the town if the Rhodians would leave their ships and come within the gates. Deceived by this stratagem, they entered the town without suspicion; when Artemisia, suddenly sallying forth with her fleet through a canal into

[q] Vitr. ii. 8.

the open sea, entered the great harbour, where she surprised the Rhodian ships unguarded, and captured them without striking a blow. The Rhodians were caught as in a trap, and slain in the market-place. It is evident from the position of the secret port,[r] that Artemisia must have passed out of it by means of a fosse cut through the isthmus, and then sailed round the rocky peninsula, on which the castle of St. Peter now stands, and which was an Acropolis in antiquity. Vitruvius says that she executed this manœuvre by making a ditch,—*fossa facta;* but this can only mean that she let the water into a dry ditch through flood-gates, as there would not have been time to dig a canal.

After thus taking the enemy's fleet, Artemisia manned it with her own crews, and sailed to Rhodes. The vessels, which had thus changed masters, approached that island decked with laurel, which led the Rhodians to imagine that their expedition had been successful, and that the fleet was returning in triumph. Through this deception, Artemisia succeeded in entering the harbour at Rhodes, and having taken the town, put to death the leading citizens. She commemorated her triumph by erecting a trophy at Rhodes, with a group of statues in bronze, in which she was represented branding a captive figure, by which the city of Rhodes was personified. The Rhodians, on recovering their liberty, rendered this monument of their defeat inaccessible. It was consequently called, in later times, the Ἄβατον.

[r] See the Plan, Plate I., and the chapter which treats of the Topography of Halicarnassus.

Artemisia continued to maintain in Cos the influence which Mausolus had established there.

Amid the stratagems which Polyænus[s] attributes to the first Artemisia, is one relating to the capture of Latmus, which may with greater probability be attributed to the widow of Mausolus, as there is no evidence to show that the dominions of the first Artemisia extended so far to the north, while we know that Latmus fell into the hands of Mausolus,[t] and may have again revolted on his death.

Artemisia is said to have taken this place by drawing out of it all the inhabitants to see a religious festival in the Grove of Cybele, and then attacking the town with a body of troops set in ambuscade.

These exploits, and the fact that the succession of Artemisia to her husband's rule was undisputed by her brother, Idrieus, show that she had a natural aptitude for command.

But her military prowess would not have given Artemisia a more illustrious place in history than has been accorded to other ancient heroines, such as her namesake and predecessor at Halicarnassus, or her father's contemporary in the Troad, Mania, the widow of Zenis. The name of the Carian princess is associated for ever with the world-famous monument by which she has commemorated her husband's renown and her own sorrow.

In the obsequies of Mausolus the refinement of Hellenic culture was happily employed in giving

[s] viii. 53, 54. [t] Polyæn. vii. 23.

scope and meaning to Asiatic magnificence, and in converting an ephemeral and sumptuous pageant into an abiding monument of beauty.

At the funeral games, four renowned rhetoricians contended for prizes in oratory and poetry, the theme being a eulogium on the departed prince. In this competition Theodektes obtained the prize for his tragedy, "Mausolus," and Theopompus vanquished his master in rhetoric, Isokrates. This contest took place B.C. 352.[u] It is to be regretted that no fragments of the prize compositions have been preserved to us, as they would probably throw light on the history of the Carian dynasty, and perhaps on the motive of the sculptures of the Mausoleum.

While rhetoric and poetry were thus invited to celebrate the memory of Mausolus in fleeting words, the genius of the most famous architects and sculptors of the day was employed in the construction of his tomb. This monument was of the class called, at a later period, *Heroon*, but surpassing in beauty of design and sumptuousness of material all similar monuments in the ancient world. The architects were Satyros and Pythios, who composed a treatise on the structure of the edifice, cited by Vitruvius, but which, unfortunately, has not been preserved. We learn from Pliny that the tomb was a peristyle building, surmounted by a pyramid, on the summit of which was a chariot group in marble. The sculptural decorations were chiefly executed by four renowned artists, Scopas, Leochares, Bryaxis, and

[u] See the authorities cited by Clinton, F. H. ii. p. 287.

Timotheus; a fifth sculptor, who seems to be the same as Pythios,[v] the architect of the tomb, made the chariot group on the summit. The material was Parian marble of the finest quality. In the descriptions of this monument which have been handed down to us, its extreme costliness is especially dwelt on—a statement which has been amply borne out by the discovery of its remains *in situ*.

Doubtless Artemisia employed on this edifice a portion of the wealth which Mausolus had accumulated by his ingenious arts of extortion, and which, after the manner of Oriental monarchs, he must have stored up in a royal treasury, as the heirloom of his house.

It seems probable, as is stated by two late Byzantine authors, that Mausolus himself commenced this tomb,[w] in accordance with a practice which has prevailed till a very recent period among some of the native dynasties of India.[x]

The extreme grief of Artemisia for the loss of her husband is said to have been the cause of her death, which took place B.C. 351.[y] Her short reign

[v] On the probable identity of these artists see Brunn, Geschichte d. bild. Kuenstl., whom I have followed in reading Pythios instead of Phileus,—Vitruv. vii. Præf. 12.

[w] Eudoc. Ἰωνιά, ap. Villoison, Anecd. Græc. i. p. 286. Nicetas, Schol. on Gregor. Nazianz. Opera, Paris, 1611, ii. p. 782. Phil. Byzant. de Spect. ed. Orell. Lips. 1816, p. 144, as this passage has been restored by Ste. Croix, Chronologie des Princes de Carie, Mémoires de l'Instit. Classe d'Hist. ii. p. 540, *note* 3. See ibid. p. 539.

[x] Ferguson, Handbook of Architect. i. p. 117.

[y] Theopompus, as quoted by Harpokration, *s. v.* Ἀρτεμισία. Cic. Tusc. Disp. iii. 23.

of two years did not enable her to see the completion of the magnificent structure which she had commenced, but the artists who had been employed continued their work after her death, till it was finished; and, if we are to believe Pliny, this was a labour of love, carried out with no other reward than the fame it won them.

Artemisia was succeeded by her brother Idrieus. He appears to have been employed by Mausolus[z] to reduce the people of Latmus, from whom he took hostages. In an inscription[a] of the city of Tralles, Idrieus is mentioned as satrap in the seventh month of the seventh year of Artaxerxes Ochus. This statement, however, cannot be reconciled with received chronology, for the latest epoch to which the date of the inscription can be brought down will not fall below April or May, B.C. 351. Now we know that Artemisia was still living when Thessalus was archon at Athens,[b] and his official year did not commence till after May, B.C. 351.

In explanation of this discrepancy it has been suggested that one of the numerals has been omitted either by the lapidary, or by the transcriber of the inscription, or else that Idrieus was named satrap of a portion of Caria during his sister's lifetime. The first of these seems the more probable supposition.

We find from Demosthenes[c] that Idrieus was in

[z] Polyæn. vii. 23. The Idrieus mentioned by Plutarch, Agesil. § 13, seems to be the same person.

[a] Boeckh, C. I. No. 2919.

[b] Demosthen. de Rhod. Libert. p. 193.

[c] De Pace, p. 63; cf. de Rhod. Libert. p. 121.

possession of Rhodes, Cos, and Chios, which islands had been under the influence of the Carian dynasty since the reign of Mausolus. He is described by Isokrates[d] as the most powerful prince of Western Asia. About B.C. 346 Artaxerxes Ochus made great preparations for the recovery of his revolted provinces of Egypt, Phœnicia, and Cyprus. For the reduction of the latter island he obtained from Idrieus a powerful force, consisting of forty triremes and 8,000 mercenaries, who were sent to Cyprus under the command of the Athenian Phocion, and of Evagoras, an exiled member of the dynasty reigning at Salamis.

This force succeeded in bringing Cyprus again under Persian authority; but it would appear from the passage from Isokrates cited above, that the friendly relations between Idrieus and the Persian king did not long continue. The reign of Idrieus lasted seven years; but no facts have been recorded respecting him, except those already mentioned. The date of his death may be fixed to B.C. 344. Idrieus, like Mausolus, struck coins, which are of extreme rarity.

He was succeeded by his sister Ada, whom, in accordance with the custom of his family, he had married. The re-conquest of Egypt, Phœnicia, and Cyprus, enabled Artaxerxes Ochus to reduce his many rebellious vassals in Asia Minor. This was accomplished by Mentor, after his appointment to the satrapy of the western coast of Asia,

[d] Philipp. c. 43, § 102.

which took place soon after the conquest of Egypt B.C. 345. The re-establishment of the Persian supremacy in Asia Minor under Mentor and his brother Memnon, who succeeded him in his satrapy, must have greatly diminished the power of the Carian dynasty, which seems to have reached its highest point under Idrieus. It is observable that after his death we hear no more of the princes of Caria as a naval power; and the islands of Rhodes, Cos, and Chios probably then declared their independence, for about B.C. 340 they renewed their old league, and sent aid to Byzantium, then besieged by Philip of Macedon.

After reigning four years, Ada was expelled from Halicarnassus by her brother Pixodarus, retaining only the fortress of Alinda. We are not informed of the particulars of this revolution, but there can hardly be a doubt that it was brought about by Persian influence, and probably at the instigation of Mentor, in order to deprive the Carian dynasty of that independent position which it had so long maintained in defiance of the Great King. The result of this policy was very successful. Pixodarus, though nominally dynast of Caria, never succeeded in bringing the whole of that province under his sway, for Ada maintained herself in Alinda until the invasion of Alexander the Great, and numbered among her adherents the leading men of many Carian cities. To strengthen his position, therefore, Pixodarus sought the favour of Persia, and marrying one of his daughters to Othontopates,[e] a satrap

[e] In the spelling of this name I have preferred the authority of

of rank and influence, associated him in his rule.[f] While making these professions of submission to his natural suzerain, Pixodarus seems to have followed the ambiguous policy of his predecessors.

It was easy for him to perceive that Philip of Macedon was likely to be a formidable enemy of the Persian king. Pixodarus, therefore, courted his alliance, proposing a marriage between his eldest daughter and Arrhidæus, the half-brother of Alexander the Great.

According to Plutarch,[g] Alexander himself, instigated by the jealousy of his mother Olympias, sent secret overtures to Pixodarus, offering himself instead of Arrhidæus, as a suitor for his daughter's hand. Pixodarus was, of course, quite ready to prefer the heir of the Macedonian throne as a son-in-law; but Philip, on discovering Alexander's clandestine designs, was much incensed, upbraiding him for seeking to degrade his royal house by an alliance with the daughter of a Carian, the slave of a barbarian king. He put an end to all further intrigues of Pixodarus, by banishing from the Macedonian court several persons whom he suspected to have been the advisers of Alexander in this matter.

No other particular respecting Pixodarus has come down to us, except the fact, that during his

the coin published by Mionnet, iii. p. 400, No. 17, to that of the texts of Arrian and Curtius, where the name of this satrap is written Orontobates.

[f] Arrian, i. 24.

[g] Alex. § x.

father's lifetime he was at Athens, probably on a mission,[h] and that he made a donation of some kind to the city of Xanthus, in Lycia.[i] That province, which had been tributary to Mausolus, probably recovered its independence after the death of Idrieus.

The reign of Pixodarus lasted five years. He does not appear to have left any issue, except the two daughters already mentioned.

Like his contemporary, Philip of Macedon, Pixodarus struck gold coins, of which only a few specimens have been found.[j] The silver coins struck by Pixodarus present the same type as those of his predecessors, with the exception of a piece purchased by me at Budrum, which I believe to be unedited, and of which the following is the description:—

Obv.—Head of Apollo, full face, laureate.

Rev.—Star of eight points; between the rays ΠΙΞΟΔΑΡΟ (retrograde).

This coin is remarkable for bearing on the reverse

[h] This stray fact may be gathered from a fragment of the comic poet Epigenes, the contemporary of Pixodarus (ap. Athen. xi. p. 472), from which it has been inferred that he was sent by his father, Hekatomnus, on an embassy to Athens.

[i] This appears from an inscription in Greek and Lycian characters, brought from Xanthus by Sir C. Fellows, now in the British Museum. It has been published by Leake, Trans. Roy. Soc. Lit. 2nd Series, ii. p. 35.

[j] Mionnet, iii. p. 399, Nos. 12, 13. Two specimens in the British Museum weigh respectively 10.7 grains and 5.4 grains. In the collection of the Bank of England is an unique gold coin of Pixodarus, published by Borrell, Numism. Chronicle, ix. p. 163. Its weight is $64\frac{1}{10}$ grs. This piece and a silver didrachm of Pixo-

the star, which was the type of Miletus.[k] On the death of Pixodarus, B.C. 335, Othontopates, his son-in-law, was appointed his successor by the Persian king. Immediately after his accession, took place the invasion of Caria by Alexander the Great.

After the battle of the Granicus, Memnon, the satrap of the western coast, fell back on Halicarnassus; and there, with the assistance of the entire Persian fleet, made every preparation to sustain a siege. A strong garrison both of Persians and foreign mercenaries was placed in the town, and the harbours were defended by the fleet, disposed in such a manner as to render material assistance to the land forces.

Alexander entered Caria from Miletus, and met with no opposition in his advance towards Halicarnassus.

He gained over the Greek cities on the route, by representing himself as their liberator from the Persian yoke, and by promising to restore to them their ancient laws and privileges, and to exempt them from tribute. The exiled princess, Ada, advancing to meet him on his march, placed in his hands the strong fortress of Alinda, and asked permission to adopt him as her son: she at the same time prayed to be reinstated in her ancient dominions. Alexander restored to her Alinda, and did not dis-

darus, formerly in Mr. Burgon's collection, and now in the British Museum, are remarkable for the beauty of their design and execution.

[k] This coin weighs $11\frac{9}{10}$ grains, and is size 1 of Mionnet's scale. It is, therefore, probably an *obolus*. How far the evidence of this coin confirms the attribution of certain pieces with the type of Miletus to Hekatomnus (see *ante*, p. 45), is a question on which I shall not enter here.

dain the adoption thus proffered. His favourable and gracious reception of Ada gained him many Carian cities, which were in the hands of ancient friends and adherents of the expelled princess. Having thus become master of nearly all Caria without striking a blow, he laid siege to Halicarnassus.[1]

The manner in which this city was fortified by Mausolus, has been already noticed in the account of his reign. There seems little reason to doubt, that the lines of the walls built by him, if not the walls themselves, exist to this day round Budrum, and much judgment is shown in the plan of these fortifications.

Memnon further strengthened the city walls by a ditch thirty cubits wide and fifteen deep; so that Alexander, on his arrival, found the place too well fortified to be taken without military engines. These he had ordered to be sent to him by sea. While awaiting their arrival, he encamped at a very short distance from Halicarnassus, and commenced the siege by an attack near the gate leading to Mylasa, which was repelled by the enemy, with no decisive result on either side. Having been informed that a party in Myndus was ready to betray that city, he tried to surprise it by a night attack. Failing in this, he subsequently undermined a tower in the city wall, and attempted to enter at the breach, but was repulsed by want of scaling-ladders and siege engines. Memnon, too, immediately reinforced Myndus by sea; so that Alexander, seeing that the attempt had failed, returned to Halicarnassus. His next operation

[1] Arrian, i. 23. Diodor. xvii. 24.

there was to fill up the ditch which had been recently dug, so as to enable his engines to approach close to the walls. High wooden towers and battering-rams were then brought up, which the besieged made a desperate effort to set on fire at night. After an obstinate contest, they were forced to retire into the city. A few days after this, an engagement was brought on accidentally, by the rashness of two of Alexander's soldiers, who, when excited by wine, attacked a rocky height[m] near the gate leading to Mylasa. The besieged made a vigorous sally, only repulsed by Alexander in person; but during this contest the defence of the walls was neglected, two towers, with the curtain between, were battered down by the rams, and a third tower so shaken and undermined, that its fall was imminent.

The besieged immediately repaired this breach by building an inner wall of brick, in the form of a half-moon, which Alexander tried to batter down, but unsuccessfully, the wall being designed so as to take the assailants in flank. On this occasion one of his wooden towers was burnt.

A few days afterwards, the besieged, finding that their provisions and munitions were failing, determined that a general sally should be made upon the Macedonians. One of these attacking parties was led by Ephialtes, an Athenian, distinguished for valour and personal strength. He selected 2,000 mercenary troops, of whom 1,000 were sent with torches to set on fire the engines planted against the

[m] The exact position of this height, or ἄκρα, will be seen by reference to the Plan, where the road leading to Mylasa is marked.

half-moon, while he himself with the remainder attacked the Macedonians.[n] Simultaneously with this sally, another body, composed of natives of Halicarnassus, under the command of Memnon, issued unexpectedly from the part of the city called Tripylon, to threaten Alexander's camp, and by this double attack to distract and perplex the enemy. After much desperate fighting, both these attacks were repulsed with great loss to the garrison, who were hotly pursued to the very city gates.

In this general rout, besiegers and besieged were so intermixed, that Alexander might have forced his way in with the fugitives; but it was nightfall, and he prudently drew off his forces till daybreak. In the night, Memnon and Othontopates, finding the city could no longer be defended, set on fire the wooden tower which they had made for attacking the enemy, the porticoes where their darts were deposited and the buildings nearest the wall, with a view of burning the whole city. They then drew off the garrison into the two citadels, that in Salmacis, and the Acropolis in the island.[o] The remainder of the population, together with their treasure, they sent over to Cos. On perceiving the general conflagration, Alexander, though it was then midnight, entered with his troops, ordering them to kill all whom they found engaged in

[n] Diodor. xvi. 26.

[o] Arrian, i. 23. *τὴν ἄκραν τὴν ἐν τῇ νήσῳ.* The text here was needlessly changed by Gronovius to *τὴν Ἀρκόννησον.* The island of Arconnesus, now Karada, is about two miles distant from Halicarnassus.

setting fire to the town; but to spare such of the citizens as remained in their houses.

When day broke, seeing that the two citadels were still occupied by the Persians and mercenaries, he decided on leaving them to be reduced by blockade. He then razed the remainder of the city to the ground, leaving a force of 3,000 infantry and 200 cavalry, under Ptolemy, to besiege the citadels and defend Caria, in which satrapy Ada was reinstated.[p]

Shortly after this, Ptolemy, joining forces with Asander, who had been intrusted by Alexander with the satrapy of Lydia, defeated Othontopates in a great battle. By this victory he obtained possession of the citadels at Halicarnassus, after which the other cities held by Othontopates—Myndus, Caunus, Thera, Callipolis, Triopium and Cos—all fell into the hands of the Macedonians.[q]

After these events, the name of Ada appears no more in history. We do not know how long she continued to rule in the satrapy which had been restored to her; but it is certain that she was the last representative of the dynasty of Hekatomnus, and, in the general partition of the empire of Alexander, B.C. 323, Caria was assigned to Asander.[r]

[p] Arrian, i. 20—23. [q] Ibid. ii. 5.

[r] Dexippus, ap. Phot. Fragm. Hist. Græc. ed. Müller, iii. p. 668, Fr. 1. Diodor. xviii. 3, 39. Curtius, x. 10. Justin, xiii. 4. Diodorus writes Cassander, in which he is followed by Curtius and Justin; but this is generally admitted to be a mistake. See Boeckh, C. I. No. 105; cf. Nos. 2691, 2692, the latter of which inscriptions probably refers to Asander, styled here satrap under Philip Arrhidæus.—Droysen, Nachfolger, p. 45.

In the list of historical portraits painted by Apelles, Pliny mentions Menander, king of Caria. If this name be not a mistake for Asander, we must suppose that Caria was, at some time during the reign of Alexander, annexed to Lydia, of which Menander was made satrap B.C. 331: he would thus have ruled Caria in the interval between the death of Ada and the partition of the empire, B.C. 323.[s]

The history of the dynasty which terminates with Ada forms an instructive comment on the condition of the Persian empire in the last half-century of its existence.

During the greater part of this period, Hekatomnus and the successive princes of his house, were allowed by the Great King to remain in undisturbed possession of their hereditary or usurped dominions, though they at no time yielded more than a doubtful recognition of his suzerainty, acting for the most part independently, and sometimes in defiance of his authority.

The rapid growth of the power of those princes, and the length of time for which their dynasty maintained itself, may be accounted for by a number of favouring circumstances. The mountainous character of a great part of Caria, and the martial spirit of its indigenous population, rendered it

[s] Pliny, H. N. xxxv. 36, § 30. Droysen, Nachfolger, p. 740, suggests that Asander is the true reading in this passage, and thinks (ibid. p. 45) that Ada may have died some time in the lifetime of Alexander, and that Asander may have been then named her successor.

Brunn (Geschichte d. Gr. Kuenstler, ii. p. 212) thinks that Pliny wrote Caria by mistake for Lydia, a less probable error.

difficult for an invading army to penetrate into the interior, as is shown by the obstinate resistance offered by the Carians to the troops of Darius Hystaspes; and it is probable that the recollection of former reverses deterred the neighbouring satraps from attempting an expedition of this kind. The coasts of Caria yielded a race of skilful mariners, and the decline of Athenian influence after the disaster of Syracuse gave Mausolus the opportunity of establishing a naval force at Halicarnassus, which placed the Greek maritime cities of Caria under his sway, and thus enabled him to consolidate his power by fusing into one nation the indigenous races and the Dorian settlers who acknowledged his rule. In consequence of the weakness and internal dissensions of the Persian empire, these ambitious designs were not interfered with, and were still further carried out by Artemisia and Idrieus.

Such were the external circumstances which favoured the ambition of the Carian princes; but it seems but just to add that much of their success must have been due to their personal character; to the boldness and adroitness with which they took advantage of every opportunity for the extension of their power.

Ruling over a mixed people, and occupying a position which connected them with Hellenic politics more than with the interests of the empire of which they formed a part, they not unnaturally adopted the policy of siding alternately with Greek or barbarian, as best suited their own interests.

This equivocal policy, neither Hellenic nor Persian, but rather Græco-Barbaric, shows itself in the whole character of their administration.

The care with which the princes of this house developed their naval power, and the munificent encouragement of art and literature which distinguishes the reign of Artemisia, may be regarded as evidence of a Hellenizing tendency, and of a certain natural capacity for Greek civilization.

On the other hand, the principles of their internal government seem, so far as we can judge from the scanty particulars recorded, to have been essentially Asiatic; their policy, being one of aggrandisement, was hostile to the independence of the neighbouring Greek states, and it is probable that their Hellenic sympathies did but little to temper the arbitrary and irresponsible character of their rule.

After the partition of the empire of Alexander, Caria remained in the hands of Asander till B.C. 313. He took part in the general coalition against Antigonus, by whom he was ultimately forced to surrender his army, and to receive back his satrapy as a gift, with other humiliating conditions. Asander shortly afterwards broke this treaty, calling in the aid of Ptolemy and Seleucus. Upon this, Antigonus invaded Caria by sea and land for the purpose of liberating the Greek cities, and took Miletus, Tralles, Iasus, and Caunus.[t]

Subsequently to these events we hear no more

[t] Droysen, pp. 357-8. Diod. xix. 75.

of Asander, and Caria must have been held by Antigonus till his death at the battle of Ipsus, B.C. 301.

In the repartition of the empire which took place after this battle, Caria probably fell to the share of Lysimachus, though this is not directly stated. At what time it passed into the hands of the Macedonian kings of Egypt is not known; but it formed part of the dominions of Ptolemy Philadelphus, and continued in the possession of his successors till the reign of Ptolemy Epiphanes.[u]

In the Appendix will be found two inscriptions (Nos. 2 and 3), the first of which relates to the building of a Gymnasium granted to Halicarnassus by King Ptolemy, on receiving from that city an embassy. The other provides funds for the building of a portico, στοά, dedicated by the people "to Apollo and King Ptolemy."

The Egyptian king mentioned in these two decrees is probably either Philadelphus or Ptolemy Euergetes.

About B.C. 201, Philip V. of Macedon being at war with Ptolemy Epiphanes, occupied Caria for a short time,[v] and it afterwards fell into the hands of Antiochus the Great, from whom it was wrested by the Romans. In the treaty which they concluded with that monarch, B.C. 188, the Romans, according to Livy,[w] divided Caria into two portions, giving to Eumenes the part called Hydrela, and

[u] Theokr. Idyll. xvii. 86—90. Compare Polyb. iii. 2, § 8, where the words καὶ Καρίαν occur in several MSS., but are omitted without cause by Schweigheuser. See his note *in loc.*

[v] Polyb. iii. 2, § 8, xvi. 11, xvii. 2.

[w] xxxvii. 56.

the territory of Hydrela, which lay towards Phrygia, and also the forts and villages on the Mæander, with the exception of such places as were free before the war with Antiochus. To the Rhodians they gave the other portion of Caria, consisting of the part of the coast lying nearest to Rhodes, and the districts in the direction of Pisidia, those towns which were free before the war with Antiochus not being included in this grant. The Rhodians thus obtained a considerable addition to the tract called Peræa, lying opposite their island, which they seem to have held from an earlier period, as it is mentioned in Scylax as their territory ;[x] and this grant included Caunus,[y] which, though lying within the territory of Peræa, had probably been independent up to this date, and continued from time to time to make struggles for liberty till the Augustan age.

After the war with Perseus, king of Macedon, B.C. 168, Mylasa, Alabanda, and Caunus revolted from Rhodes; and an appeal being made to Rome, the Senate, displeased with the part taken by the Rhodians in the war with Perseus, deprived them of that part of their Carian territory which they had bestowed after the defeat of Antiochus.[z]

[x] When the Rhodians claimed the Peræa from Philip V. they declared that it belonged to them *a majoribus suis.*—Livy, xxxiii. 18 ; cf. Scylax, Peripl. p. 38. According to Strabo (xiv. pp. 651-2) the Peræa of Rhodes lay between Mount Phœnix and Dædala.

[y] Appian, Mithrid. c. 23. The Rhodians, according to Polybius, xxxi. 7, bought Caunus from the generals of Ptolemy for 200 talents. This was probably after B.C. 309, when Caunus was taken by Ptolemy Soter.—Diodor. xx. 27.

[z] Polyb. xxx. 5. Livy, xlv. 20, 25.

About B.C. 129, the Romans added Caria to their province of Asia; but Strabo seems to speak of the Peræa as still belonging to the Rhodians of his time.[a]

In the re-arrangement of the provinces of the Roman empire, which took place in the fourth century A.D., Caria became a separate province, as appears from the "Notitia," and also from a Latin inscription found by me at Budrum.[b]

After the taking of Halicarnassus by Alexander the Great, it never regained its greatness, though it may be inferred from the two inscriptions cited *ante*, p. 69, that some of the destruction caused by the siege was repaired while it was in the possession of the Ptolemies. Cicero, who accuses Verres of having carried off some statues from this city,[c] describes it as almost deserted in his own time, till it was restored by his brother Quintus.[d] We learn from Josephus,[e] that during the reign of Hyrcanus II., a decree, granting certain privileges to the Jews, was made by the people of Halicarnassus.

In the reign of Tiberius they competed for the honour of erecting a temple to that emperor, alleging in support of their claim, that their city had stood for 1,200 years without experiencing the shock of an earthquake.[f]

[a] Cic. pro Flacco, c. 27. Strabo, xiv. p. 651.

[b] Notit. Or. pp. 7 and 10, ed. Boecking, as quoted by Henzen, Bullet. Inst. Arch. Rom. 1860, pp. 170-1, where this inscription is published.

[c] Verr. i. 19. [d] Epist. ad Quint. Frat. i. 1.

[e] Joseph. Hist. Jud. xiv. 10, § 23. [f] Tacit. Annal. iv. 55.

CHAPTER III.

HISTORY OF THE DISCOVERY OF THE MAUSOLEUM.

Notices of the Mausoleum in Byzantine authors down to the 12th century. Its first overthrow probably due to an earthquake. Occupation of Halicarnassus (Budrum) by Knights of St. John, A.D. 1402, who build the castle of St. Peter out of the ruins of the Mausoleum. Guichard's narrative of the discovery of the interior of the tomb in 1522. Credibility of this narrative from internal evidence. Notices of the Mausoleum by successive travellers—Thévenot, Dalton, &c. Removal of portions of the frieze from the castle by Lord Stratford de Redcliffe in 1846. Survey of Budrum by Captain Spratt. Discovery of Lions in the walls of castle in 1855 by the Author. His visit to Budrum in 1856, in the *Medusa*. Expedition to Budrum in autumn of same year.

AFTER the annexation of Caria by the Romans, the name of Halicarnassus scarcely occurs in connection with any historical event, but the Mausoleum is mentioned from time to time by ancient writers, from the age of Strabo to the 12th century. The well-known passages relating to this tomb, in Vitruvius, Pliny, Lucian, and other authors of the classical period, will be fully considered in the chapter which treats of the design of the Mausoleum.

In the latter part of the fourth century A.D., Gregory of Nazianzus[a] alludes to the Mausoleum in

[a] Opera, ed. Caillan. Paris, 1840, ii. p. 1188, Epigr. 57.

Μαυσώλου τάφος ἐστὶ πελώριος, ἀλλὰ Κάρεσσι
Τίμιος, οὔτις ἔκει τυμβολέτης παλάμη.

an epigram, from which it may be inferred that up to that period it had never been plundered. It is also mentioned by a contemporary of Gregory, Nicetas of Cappadocia.[b]

In the tenth century it is noticed by Constantine Porphyrogenitus,[c] with the expression ἵδρυται, which shows that it was standing when he wrote; and two centuries later, Eustathius[d] in his Commentary on the Iliad, says of the Mausoleum, that "it was and *is* a wonder;" from which it may be presumed that the main features of the design still retained their original beauty.

The preservation of the Mausoleum to so late a period of the Byzantine Empire, is, perhaps, due to the fact that, having been a tomb and not a temple, it may on this ground have been spared by the Iconoclasts. At what time it first fell into ruin is not known; but, from the extreme solidity of the structure, it may be presumed that the downfall of the upper part of the monument was due to an earthquake.

In the year 1402,[e] the Knights of St. John took

[b] See this passage apud Phil. Byzant. de Spect. ed. Orell. Lips. 1816, p. 144.

[c] De Them. i. 14.

[d] Comment. ad Il. ed. Lips. 1829, p. 1298. Καὶ ὁ μὲν τοῦ Μαυσώλου μάλα πολλὸς τάφος ἄκρως περιείργασται, καὶ θαῦμα καὶ ἦν καὶ ἔστιν. The statement of Eudocia (Ἰωνιά, Villoison, Anec. Græca, p. 286), that the Mausoleum was built on a mound in a marshy lake, ἐν χώματι καὶ ἐν λιμναζούσῃ λίμνῃ, is altogether unworthy of credit.

[e] For this date I have followed Ste. Croix (p. 569 of the Memoir already quoted), in preference to Bosio.

possession of Halicarnassus, which seems to have been then called Mesy.

The position was one of great importance for the maintenance of their naval power in the Archipelago, and they therefore at once commenced building a castle on the rocky peninsula in the harbour. This fortress, named after St. Peter, was constructed by a German knight, called Henry Schlegelholt, out of the ruins of the Mausoleum.

The first materials made use of would naturally be the marbles from the upper part of the edifice which were lying *in situ* detached by their fall, such as the steps of the pyramid, the architrave and slabs of the frieze. As the ruins were thus gradually cleared away, and the tomb became more accessible, the stylobate and marble facing of the basement would be stripped off, till nothing of the edifice remained but the solid core of the masonry.

It will be shown in a subsequent part of this work, that, though the castle of St. Peter was commenced about the year 1402, by Schlegelholt,[f] its fortifications were extended and repaired from time to time during the period of rather more than a century, while it was held by the Knights. Through all this time the ruins of the Mausoleum must have supplied both stone and lime for the builders.

In 1472, when Cepio visited Budrum in the expedition of Pietro Mocenigo, the remains of the

[f] Fontano, the contemporary of Schlegelholt, in speaking of his work at Budrum, uses the expression "struere cœpit."—De Bello Rhod. ed. Hag. 1527, ii. k. 1.

Mausoleum, *vestigia* he terms them, were shown him amid the ruins of the ancient city.[g] What these *vestigia* were, we learn more distinctly from the following passage, from the curious old work of Guichard, on the sepulchral rites of the ancients, printed at Lyons in 1581.[h]

[g] Cor. Cepio de P. Mocenici Gestis. Venet. 1477, p. 20. Cujus nos inter urbis ruinas vestigia vidimus. Compare Sabellicus, Decad. III. lib. 9, Opera, Basil. 1560, ii. p. 1476. Visuntur adhuc, ut Coriolanus scribit, molis illius eximiæ inter cæteras urbis ruinas vestigia quædam.

[h] Funerailles des Rommains, Grecs, &c. Lyon, 1581, iii. 5, pp. 378-81.

"L'an 1522, lors que Sultan Solyman se preparoit pour venir assaillir les Rhodiens, le Grand Maistre sçachāt l'importance de ceste place, et que le Turc ne faudrait point de l'empieter de premiere abordee, s'il pouuoit, y.enuoya quelques cheualiers pour la remparer et mettre ordre à tout ce qui estoit necessaire soustenir l'ennemi, du nombre desquels fut le Commandeur de la Tourrette Lyonnois, lequel se treuua depuis à la prise de Rhodes, et vint en France, où il fit, de ce que ie vay dire maintenāt, le recit a Monsieur d'Alechamps, personnage assez recongnu par ses doctes escrits, et que ie nomme seulement, à fin qu'on sçache de qui ie tien vne histoire si remarcable. Ces cheualiers estans arriués a Mesy, se mirent incontinent en deuoir de faire fortifier le chasteau, et pour auoir de la chaux, ne treuuans pierre aux enuirons plus propre pour en cuire, ny qui leur vinst plus aisee, que certaines marches de marbre blanc, qui s'esleuoyent en forme de perron emmy d'un champ pres du port, là où iadis estoit la grande place d'Halycarnasse, ils les firêt abbattre et prendre pour cest effect. La pierre s'estant rencōtree bonne, fut cause, que ce peu de maçonnerie, qui parroissoit sur terre, ayant esté demoli, ils firent fouiller plus bas en esperance d'en treuuer d'auantage. Ce qui leur succeda fort heureusement : car ils recognurent en peu d'heure, que de tant plus qu'on creusoit profond, d'autant plus s'eslargissoit par le bas la fabrique, qui leur fournit par apres de pierres, non seulement à faire de la chaux, mais aussi pour bastir. Au bout de quatre ou cinque iours, apres auoir faict vne grande descouuerte, par vne apres disnee

"In the year 1522, when Sultan Solyman was preparing to attack Rhodes, the Grand Master, knowing the importance of the Castle of St. Peter, and being aware that the Turks would seize it easily at the first assault, sent some knights thither to repair the fortress and make all due preparations to resist the enemy. Among the number of those sent was

ils virent une ouverture comme pour entrer dans vne caue : ils prirent de la chandelle, et deualerent dedans, où ils treuuerent vne belle grande salle carree, embellie tout au tour de colonnes de marbre, auec leurs bases, chapiteaux, architraues, frises et cornices grauees et taillees en demy bosse : l'entredeux des colonnes estait reuestu de lastres, listeaux ou plattes bandes de marbre de diuerses couleurs ornees de moulures et sculptures conformes au reste de l'œuure, et rapportés propermēt sur le fonds blāc de la muraille, où ne se voyait qu'histoires taillees, et toutes battailles á demy relief. Ce qu'ayans admiré de prime face, et apres avoir estimé en leur fantāsie la singularite de l'ouurage, en fin ils defirent, briserent et rompirent, pour s'en seruir comme ils auoyent faicte du demeurant. Outre ceste sale ils treuuerent apres vne porte fort basse, qui conduisoit à une autre, comme antichambre, ou il y auoit vn sepulcre auec son vase et son tymbre de marbre blanc, fort beau et reluisant à merueilles, lequel, pour n'avoir pas eu assez de temps, ils ne descouurirent, la retraicte estant desia sonnee. Le lendemain apres qu'ils y furent retournés, ils treuuerēt la tombe descouuerte, et la terre semee tout autour de force petits morceaux de drap d'or, et paillettes de mesme metal : qui leur fit penser, que les corsaires, qui escumoyent alors le long de toute ceste coste, ayans eu quelque vent de ce qui auoit esté descouuert en ce lieu là, y vindrent de nuict, et osterent le couuercle du sepulcre, et tient on qu'ils y treuuerent des grandes richesses et thresors. Ainsi ce superbe sepulcre, compté pour l'un des sept miracles, et ouurages merueilleux du monde, apres auoir eschappé la fureur des Barbares, et demeuré l'espace de 2247 ans debout, du moins enseueli dedans les ruines de la ville d'Halycarnasse, fut descouuert et aboli pour remparer le chasteau de S. Pierre, par les cheualiers croisés de Rhodes, lesquels en furent incontinent apres chassés pas le Turc, et de toute l'Asie quant et quant."

the Commander de la Tourette, a Lyonnese knight, who was afterwards present at the taking of Rhodes, and came to France, where he related what I am now about to narrate to M. d'Alechamps, a person sufficiently known by his learned writings, and whose name I mention here only for the purpose of publishing my authority for so singular a story.

"When these knights had arrived at Mesy (Budrum), they at once commenced fortifying the castle; and looking about for stones wherewith to make lime, found no more suitable or more easily got at than certain steps of white marble, raised in the form of a terrace (*perron*) in the middle of a level field near the port which had formerly been the great Place of Halicarnassus. They therefore pulled down and took away these marble steps, and, finding the stone good, proceeded, after having destroyed the little masonry remaining above ground, to dig lower down, in the hope of finding more.

"In this attempt they had great success, for in a short time they perceived that, the deeper they went, the more the structure was enlarged at the base, supplying them not only with stone for making lime, but also for building.

"After four or five days, having laid bare a great space one afternoon, they saw an opening as into a cellar. Taking a candle, they let themselves down through this opening, and found that it led into a fine large square apartment, ornamented all round with columns of marble, with their bases, capitals, architrave, frieze, and cornices, engraved and sculptured in half-relief. The space between the columns

was lined with slabs and bands of marbles of different colours, ornamented with mouldings and sculptures, in harmony with the rest of the work, and inserted in the white ground of the wall, where battle-scenes were represented sculptured in relief.

"Having at first admired these works, and entertained their fancy with the singularity of the sculpture, they pulled it to pieces, and broke up the whole of it, applying it to the same purpose as the rest.

"Besides this apartment, they found afterwards a very low door, which led into another apartment, serving as an antechamber, where was a sepulchre, with its vase and helmet (*tymbre*), of white marble, very beautiful, and of marvellous lustre. This sepulchre, for want of time, they did not open, the retreat having already sounded.

"The day after, when they returned, they found the tomb opened, and the earth all round strewn with fragments of cloth of gold, and spangles of the same metal, which made them suppose that the pirates, who hovered along this coast, having some inkling of what had been discovered, had visited the place during the night, and had removed the lid of the sepulchre. It is supposed that they discovered in it much treasure.

"It was thus," adds this quaint old writer, "that this magnificent tomb, which ranked among the seven wonders of the world, after having escaped the fury of the barbarians, and remained standing for the space of 2,247 years, was discovered and

destroyed to repair the Castle of St. Peter, by the Knights of Rhodes, who immediately after this were driven completely out of Asia by the Turks."

It is to be presumed that the d'Alechamps cited by Guichard as his authority for this singular narrative, was the well-known editor of Pliny. So far as we can judge from internal evidence, the circumstances of the discovery seem to have been as accurately reported by de la Tourette as could be expected in an age when Archæology was yet in its infancy. The finding of spangles of gold which had been sewn on to garments, is an incidental proof of the truthfulness of the account generally; for such frail ornaments have been discovered in great abundance in other royal tombs of the best period of Greek art.

The next notice we have of the remains of the Mausoleum is in the French traveller Thévenot, who visited Budrum in the middle of the 17th century, and notices certain slabs in low relief, extremely well sculptured, which were inserted in the walls of the castle.[1] Thévenot does not seem to have been aware that these reliefs were a few relics of the Mausoleum which, notwithstanding the wanton destruction described by Guichard, the knights had taste enough to save, and which they inserted at intervals in the walls of their castle, according to a fashion very prevalent in Italy in the 15th century.

From the time of Thévenot to the present day, these reliefs were occasionally noticed by travellers visiting Budrum. They were drawn by Dalton, and

[1] Voyage au Levant, ed. Paris, 1665, i. p. 215.

published in his "Views in Greece and Egypt, 1751-81," and also in Mayer's "Views in the Ottoman Empire."[j]

The scanty and occasional notices thus furnished by travellers gradually excited the curiosity of Europe with regard to these sculptures.

Though the evidence for such an opinion was as yet incomplete, it was generally believed that these reliefs formed part of the external frieze of the Mausoleum, and it was thought, not without reason, that in them, as in the marbles of the Parthenon, would be found the characteristics of a great school of sculpture. A wish was very generally expressed among the archæologists and students of art in England, that these reliefs might be rescued from their perilous and obscure situation at Budrum, and brought to England; but it was not till the year 1846 that this wish was carried into execution by the zealous and praiseworthy exertions of Viscount Stratford de Redcliffe, at that time British ambassador at Constantinople. Having obtained from the Porte a firman authorizing the removal of these marbles from the castle walls, Lord Stratford de Redcliffe caused them to be sent to England in H.M.S. *Siren*, and presented them to the British Museum.

[j] Views in the Ottoman Empire, by Luigi Mayer, p. 16. This Plate is repeated in the supplement to vol. ii. of Ionian Antiquities. See also Choiseul Gouffier, Voyage Pittoresque, i. p. 158. Moritt, in Clarke's Travels, part ii. § 1, pp. 214-17. W. J. Hamilton, Travels in Asia Minor, ii. pp. 30-6. Captain W. B. Devereux, R.N., Views on the Shores of the Mediterranean, 1847.

These slabs were thirteen in number, and in somewhat indifferent condition, in consequence of the bad usage and exposure to weather which they had undergone.

Very soon after their arrival in England, I drew up, with the assistance of my friend Mr. C. R. Cockerell, R.A., a memoir[k] on these sculptures, in which I endeavoured to determine the site of the Mausoleum, its structure and general proportions, and the relation of the reliefs recently brought to England to the whole design, basing my views on such evidence as could be gathered either from ancient authors or from existing *vestigia*, and tracing the history of this famous monument from antiquity to the period of its final destruction in the 16th century.

The examination of these questions led me to the conviction that for their complete elucidation more evidence was necessary, and that this evidence must be sought for, not in books, but at Budrum itself; that the site whence these marbles were obtained had not as yet been sufficiently explored.

In studying the topography of Halicarnassus, I derived much assistance from the chart made by Captains Graves and Brock for the Hydrographical Survey;[1] but, failing to identify by the aid of this document certain principal features of the city as described by ancient authors, I submitted my difficulties to the late Sir Francis Beaufort, then at the head of the Hydrographical Depart-

[k] Classical Museum, v. pp. 170—201.

[1] Admiralty Chart, No. 1606. By the kindness of Sir Francis Beaufort, I was permitted to make use of the plate of this chart for my memoir.

ment at the Admiralty. The object of my researches did not fail to engage the interest of the author of "Caramania," and, with that prompt zeal for which he was so distinguished in the promotion of scientific inquiry, Sir F. Beaufort instructed Captain Graves, then surveying the adjacent islands of the Archipelago, to take an early opportunity of visiting Budrum, with a view of ascertaining, if possible, the site of the Mausoleum.

In consequence of this instruction, a second survey of Budrum was made by Captain, then Lieutenant, T. Spratt, on a larger scale than the previous one, and with several important additions to the topography. In a memoir published by Captain Spratt, in the "Transactions of the Royal Society of Literature,"[m] in illustration of this survey, he gives his reasons for placing the site of the Mausoleum on a platform east of the position to which I had assigned it in my memoir.

Shortly after the publication of Captain Spratt's memoir, Budrum was visited by a distinguished German traveller, Dr. Ludwig Ross, who, in the fourth volume of his travels,[n] reconsidered the question of the topography, and differed both from Captain Spratt and myself on the subject of the site of the Mausoleum.

In April, 1855, I had the opportunity of visiting Budrum myself, and it was then that I made the remarkable discovery which induced Her Majesty's Government to send out the expedition forming the subject of this work.

[m] Second Series, v. Pt. 1, pp. 1—23.

[n] Reisen auf den Griech. Inseln,—Halle, 1852, iv. pp. 30—41.

In my memoir on the Mausoleum already cited, I had expressed the hope that in the walls of the Castle at Budrum many remains of the Mausoleum might still be found, and that a closer examination

View of Lion in wall of Castle, from a Photograph.

of this fortress might lead to the recovery of these fragments, as in the case of the Temple of Victory at Athens, a large portion of which was extracted from the walls of a Turkish bastion.

It was in this hope that, on my arrival at Budrum, my first visit was to the Castle. On entering it, I observed, to my surprise, several,

colossal lions in Parian or Pentelic marble, and in the finest style of sculpture, inserted in the walls in different places (see the cut on the preceding page). I had no hesitation in at once recognizing these as part of the Mausoleum, and I contemplated them with that interest which it was natural to feel on seeing for the first time sculptures in the round, which could, on historical evidence, be proved to belong to the school of Scopas and his illustrious fellow-labourers.

I lost no time in communicating my discovery to Lord Stratford de Redcliffe, then Her Majesty's Ambassador at the Porte, and his lordship, not forgetting the claims of Archæology even amid the momentous distractions of the Russian war, most kindly forwarded my views to the utmost of his power, applying to the Turkish Government for a firman authorizing me to excavate, and obtaining for me the temporary service of H.M.S. *Medusa*, by which I was enabled to visit Budrum again during the spring of 1856.

On this occasion I spent six weeks there, during which time I was enabled to explore the Turkish quarter minutely. Not having as yet received the firman for which Lord Stratford had applied, and having only at my disposal a small sum liberally advanced by his lordship in furtherance of my researches, I contented myself, during this visit, with making some small experimental excavations, of which an account will be given in a later part of this work.

I left Budrum in April, 1856, and in the autumn of the same year took advantage of a visit to

England to submit my views to Mr. Panizzi, the Principal Librarian of the British Museum, and through him to Her Majesty's Government. Having been authorized by the Earl of Clarendon, then Foreign Secretary, to address him officially on the subject, I drew up a memorandum, in which I stated, that, to ensure the success of the enterprise which I proposed, it would be necessary to have the services of a ship of war for at least six months, a firman authorizing the removal of the lions from the castle walls, and funds to the amount of £2,000.

I also stated that it would be desirable that a lieutenant of the Royal Engineers and a party of four Sappers should accompany the expedition, in order to direct such operations as might require special engineering skill; and, in order to ensure an accurate record of our excavations, I suggested that one of the Sappers should be a photographer. These suggestions were at once carried into effect by Her Majesty's Government, and the small party of Royal Engineers was further provided with every kind of stores and appliances from the War Department, which might be needed in the varied operations of such an expedition. The ship appointed by the Admiralty for this special service was Her Majesty's steam corvette *Gorgon*, under the command of Captain Towsey, with a crew of 150 men. Lieutenant R. M. Smith was the officer of Engineers selected to command the party of Sappers, who consisted of Corporal William Jenkins, as senior non-commissioned officer, Corporal B. Spackman, as photographer, and two Lance-Corporals, one a smith, the other a mason.

CHAPTER IV.

HISTORY OF THE DISCOVERY OF THE MAUSOLEUM.

Arrival of the *Gorgon* at Budrum, November, 1856. Discovery of the site of the Mausoleum, January 1, 1857. Evidence by which that position was fixed. Progress of the Excavation. Equestrian Figure. Western staircase. Alabastron, with name of Xerxes. Stone at entrance to Tomb. Plan of the Foundations. Correspondence of the dimensions with those given by Pliny. The Basement. Manner in which the great stone was fastened. Discovery of four slabs of Frieze. Piers on north side of the Quadrangle. Northern Peribolus wall. Discovery of statues and steps of Pyramid behind this wall. Form of the ground on this side. Masonry of Peribolus wall. Discovery of eastern Peribolus wall. Imaum's house. Angle capital. Marble Pyxis. Wall to the north of Peribolus wall. Marbles near Mehemet Ali's house.

THE *Gorgon* arrived at Budrum at the beginning of November, 1856. We immediately commenced several excavations, an account of which will be given in a later part of this work; but it was not till the 1st of January, 1857, that we were enabled to begin digging on the true site of the Mausoleum.

The evidence by which I was enabled to make this discovery was as follows:—The situation of this monument is marked with great exactness by Vitruvius in a passage already cited,[a] as being in the centre of the bend formed by the harbour of Budrum,

[a] *Ante*, p. 39.

between the *Agora* on the shore, and the Temple of Mars on the heights above.

In my memoir on the Mausoleum, already referred to, I drew attention to the fact that Professor T. L. Donaldson, on visiting Budrum many years ago, remarked, a little to the north of a large *konak*,[b] then the palace of the Aga, many fragments of shafts of columns, volutes, and other ornaments of a superb Ionic edifice equalling in taste, finish, and material the finest edifices of Athenian art; and I stated my opinion that these fragments were probably those of the Mausoleum lying *in situ*, as the central position of this spot corresponded at once with the description of the site in Vitruvius, and with the less exact notice of it in Guichard. My suggestion, however, was rejected both by Captain Spratt and Dr. Ross; by the latter in so summary and decided a manner, that, had I not had the opportunity of visiting the spot myself, I should have probably felt less confidence in an opinion which found so little favour with two eminent topographers.

Being enabled, however, in the spring of 1856, carefully to examine every part of Budrum, I could not fail to be struck with the fact, not only that the fragments noticed by Mr. Donaldson were of the finest period of Greek architecture, but that in no other part of the ancient city were such distinct vestiges of Hellenic art; the architectural remains being, with very few exceptions, of the Roman period and of a very inferior style.

[b] This Konak is now the residence of Salik Bey. See Plate II.

The place visited by Mr. Donaldson was so encumbered with houses and garden walls, and so cut up into small plots, that it was not till after long familiarity with the ground that I recognized its real features.

One peculiarity about this spot was the unevenness of the surface of the fields, in which hillocks and hollows occurred so capriciously as to appear rather the result of ancient excavations than any natural formation. This anomalous configuration of the ground, and the impediments which the houses and enclosures offered to a general view, for a long time prevented me from tracing out the outline of the great platform on which the Mausoleum stood.

I commenced operations in a field near the house of a Turk called Hadji Nalban.[c] Here the soil was full of small fragments and splinters of the finest white marble, as if from the breaking-up of ancient sculpture.

After digging for a day or two, I came to several small fragments broken off from a frieze in high relief. One of these, a foot, had a piece of moulding attached, which I at once recognized as identical with that of the slabs of frieze removed from the castle in 1846.

This was enough to convince me that I was on the right track, and that the site of the Mausoleum could not be far off. Pieces of detached mouldings from an Ionic edifice were continually turned up

[c] See Plate IV.

by my workmen out of the earth, and, on a closer inspection of the walls of the Turkish houses and gardens, I found them to be full of pieces of the same mouldings, intermixed with which were fragments of colossal lions similar to those in the castle.

On the west side of the Mausoleum, in front of the house marked Vakuf in Plate II., is a field bounded by a wall, which contained a number of drums of Ionic columns, with an average diameter of 3′ 5″. Taking down this wall, I found in its foundations the hind-quarter of a lion, rather smaller than those in the castle; and, on digging below its base, came upon a line of vertical cutting in the native rock of the field. This cutting in the rock ran north and south.

Continuing to follow it downwards, I came to an area paved with large slabs of a coarse green stone strongly clamped together with iron. These slabs were[d] 4′ square and 1′ thick. The height from the level of the pavement to the natural surface of the rock above was, in this place, about eight feet. The hollow all along the side of the cutting was partially filled up with drums of Ionic columns, and fragments of bases and capitals and other remains of architecture; among these were two marbles from *Laćunaria*, one of which retained the original blue colour of its ground in surprising freshness. Intermixed with these architectural remains were several portions of the bodies of colossal lions on the same scale as those in the castle, very many small fragments of

[d] In this work, feet and inches are generally expressed thus: feet, ′; inches, ″.

frieze, and some portions of large statues in the round. It became evident from the quantity and variety of these remains, that we were on the actual site of the Mausoleum.

The difficulty now was to know in which direction to proceed. Houses and garden-plots hemmed me in on every side, and, as every one of these belonged to a different owner, the difficulties of negotiation were infinite. Pursuing the cutting southward, we soon came to a return running to the east, which, after continuing a few feet, was broken off, and we failed to recover the line. To the north we were equally unsuccessful; after tracing the line of cutting for 48′ from the south-west corner, it suddenly disappeared, and our only guide from this point was the pavement, which continued onward to the north, though not on one uniform level. In advancing in this direction, we came to the mutilated remains of a magnificent colossal group representing a warrior in a Persian dress on a horse, which, in the original design, must have been represented rearing up. This group will be more particularly described in a subsequent part of this work. A few feet from it was a male figure draped to the knees.[e]

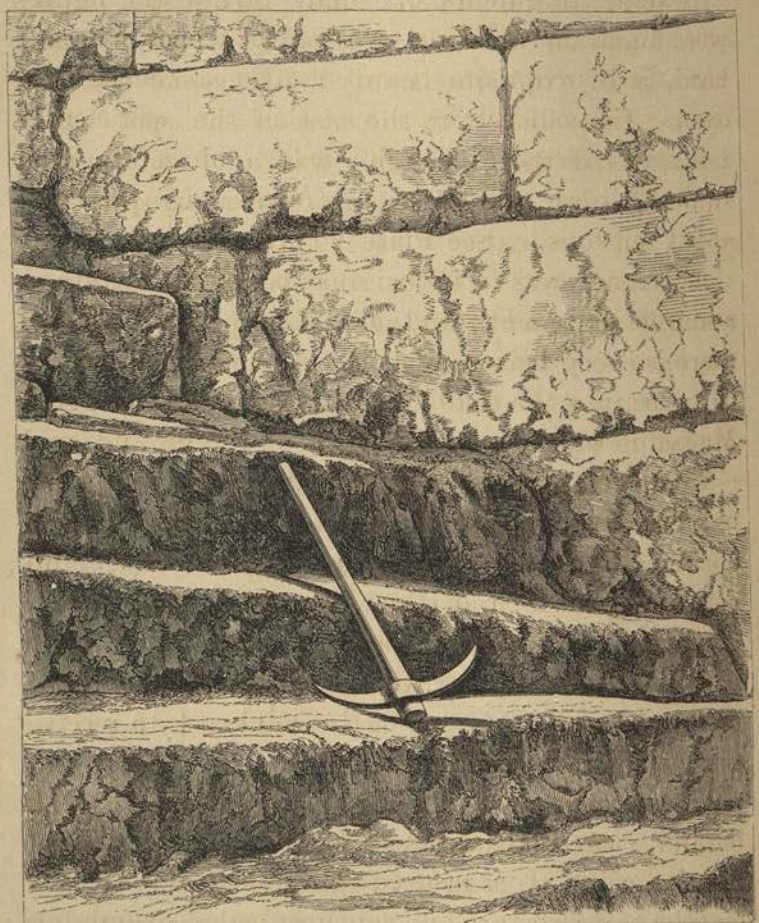
I had now explored the narrow strip of ground running from north to south, which the proprietors had with great reluctance permitted me to dig. I was still uncertain in which direction the pavement ran: the expense of the excavation was very great; for,

[e] Erroneously described as a "Female statue," in the plan of the Mausoleum, Plate III.

there being no convenient manner of disposing of the earth and rubble as it was dug out, it had to be piled up in mounds, which interfered with a proper survey of the ground. To the west of the spot where I had discovered the group of the Persian horseman, finding that the earth was very deep, and sufficiently solid to admit of mines being driven without wooden frames to support them, I opened two parallel galleries, working westward from the line of excavation. After advancing a few feet, we came to a staircase cut out of the solid rock, which we ascended step by step, driving the galleries upwards till we came to the surface of the field. I then succeeded in obtaining possession of the ground, and cleared the staircase. It was twenty-nine feet wide, and consisted of twelve steps. The mass of earth accumulated over the lowest step was twenty feet in depth. This soil was of a white and friable nature, containing much decomposed native rock, and little or no vegetable matter. On the north, as will be seen by the cut, this staircase is flanked by a wall of good isodomous masonry, built of large blocks of native rock. A few feet to the east of the stair we discovered some alabaster jars of remarkable size and beauty, such as were used by the ancients for precious ointments, and are called, from their material, *alabastra*.

On one of these jars I discovered, to my great surprise, two inscriptions, one in hieroglyphics, the other in the cuneiform character. The inscription in hieroglyphics contained a royal cartouche, which led me at the time of the discovery to think that the

name was that of Mausolus. I was not then aware that the vase which I had discovered was identical



View of stair and flanking wall, from a Photograph.

with one now in the Bibliothèque Impériale at Paris, and that the inscription, according to the best authorities, contains the name of Xerxes written in four languages. A view of this vase, with a facsimile of the inscriptions on it, is given Plate VII.

and a dissertation on this and similar *alabastra* will form one of the Appendices to this work.

Several fragments of small terra-cotta figures were found on the same spot, one of which, a female head, is of exquisite beauty;[f] also some bones of oxen. Immediately to the east of the spot where I discovered these remains, was a block of green stone, 7′ high, by 4½′ square, weighing probably about ten tons. (See Plate VIII.)

This stone was in its original position, resting on a marble pavement; and, as I shall presently show, there is every reason for believing that it closed the entrance into the tomb through which the body of Mausolus was conveyed.

Having now traced the foundations and pavement to a considerable distance, in a line from south to north, and having met with no vestige of these foundations to the west of this line, while there was a distinct return at its southern extremity, I assumed that this return was the south-west angle of a rectangular area, cut out of the solid rock to receive the foundations of the Mausoleum.

Knowing from Pliny that the circumference of the building was 411 feet, and that it was longest from east to west, I measured off approximately the lengths of its western and southern sides, examining the ground minutely, with a view to discovering the north-west and south-east angles. No trace of this latter angle presented itself; but a few feet to the north of the great stone there was an abrupt and strongly-marked depression of the ground, the dis-

[f] See Plate LX. fig. 5.

tance of which from the return on the south was rather more than 100 feet.

Thinking it probable that the north-west angle might be found here, I opened the ground, and, to my great satisfaction, came upon a very distinct right angle, cut in the native rock, one side of which, if produced to the south, would join the line of cutting on the west. The distance of this angle from the return on the south was 108′, which gave me the dimensions of two sides of the quadrangular area of the foundations. I next proceeded to explore by digging the ground on the east till I found the south-east angle, at the distance of 127 feet from the south-west angle. Having obtained these data, I proceeded to purchase and clear away all the houses, four in number, which stood on the site of the Quadrangle itself. (See Plate IV.)

The difficulty of negotiation being very great, a delay of several months occurred before I obtained possession of the whole of the ground; but having finally removed both the houses and the superincumbent soil, I laid bare the whole area of the Quadrangle. The result of this excavation is best seen in the plan and sections, Plates III. V.

It will be seen by reference to these documents, that the quadrangular area in which the foundations of the Mausoleum were laid was cut in the native rock in beds of very various depths, the lowest part of the area being on the west side, where, under the great stone, the cutting is 15′ below the natural level of the rock, while on the east side the bed rises within 4′ of it. The whole of this area had been

filled up with the courses of the foundations, consisting of slabs of a coarse green stone, strongly bound together with iron clamps, and generally measuring about 4 feet square by 1 foot thick. In some places as many as three courses of these foundation slabs remained, in others a single course, which, when first uncovered, had the appearance of a pavement, and is described as such in my earlier despatches. In other spots the whole of the foundation courses had been removed, and the original bed of the rock was laid bare.

The whole quadrangular area in which these courses still remained measured 127 feet from east to west, by 108 feet from north to south—dimensions which sufficiently correspond with Pliny's measurement for the entire circuit, which is 411 feet according to one reading, and 440 feet according to the other, because, as it is to be presumed that his measurement refers to the *Pteron*, it would be but natural that the foundations should be something larger than the superstructure.

On visiting the castle of Budrum shortly after laying bare the site of the Mausoleum, I perceived that the green stone of the foundations had been most extensively employed in the construction of the castle, both in the walls and pavement, as might be inferred from the narratives of Guichard and Fontano already referred to. On comparing these accounts with the facts disclosed by excavation, it is evident that, at the time of the Knights, the ruins of the upper part of the edifice—which was probably entirely of marble—were lying about its

base, and that, after having cleared away these upper ruins, the knights removed the basement, slab by slab, working down till they got into the royal sepulchral chamber itself, which was probably situated in the very heart of the masonry of the basement. After the occupation of Budrum by the Turks, the foundations must have continued to serve as a quarry, for the twelve houses which I found standing on the site were all built of rubble, in the proportion of three parts of green stone to one part of marble, both materials having been evidently broken up by the sledge-hammer. The Mausoleum can only have ceased to supply building materials when the hollows caused by the removal of its foundations became inconveniently deep, and were filled up with soil by deposit from the hill to the north.

The amount of green stone still to be seen in the castle proves that the basement of the Mausoleum was built of it, and that the mass of this basement must have made it a considerable feature in the whole design of the edifice. What the height of this lower part was, may, I think, be inferred from Pliny's description, as will be more particularly shown when the architecture of the Mausoleum comes under discussion in this work.

At what level the sepulchral chambers in the basement were situated, cannot now be ascertained.

It is worthy of note that the great stone east of the staircase rested on two slabs of white marble, to which it had been carefully adjusted in the following manner:—In the great stone, bronze

dowels were fixed, corresponding with bronze sockets let into the marble slabs. The accompanying cut shows one of these dowels within a bronze collar, which was fixed in the great stone with lead.

Height, $3\frac{8}{10}$ *in.; diam.* $2\frac{4}{10}$ *in.*

Doubtless it was intended by the architect that, on lowering this stone, the dowels should drop out of their collars into the sockets below; but, whether through accident or *fraud*, they appear to have remained in the collars instead of descending into the holes to which they had been fitted. This may be seen on examining the ends of these dowels, which are united all round the edge to the collars by a strong patina. Perhaps the workmen employed on this operation purposely contrived that it should be thus incomplete, with the same motive as actuated the builder of the treasury of the

Egyptian king Rhampsinitus.[g] On the west or outer side, the marble slabs were flush with the green stone, which was continued as a pavement till within 16′ of the stair,[h] where it ceased flush with the native rock. It may be inferred that on the inner or east side of the great stone, the marble pavement was continued eastward at the same level; for, as will be seen by Plate VIII., the ends of the slabs under the great stone projected over a lower course of green stone, below which was the native rock. This marble pavement covered a drain which runs east and west from the interior of the basement into a gallery to be presently described. Between the great stone[i] and the gallery, this drain is cut in the native rock: within the Quadrangle, it runs between courses of green stone. It is to be observed that these slabs were the only marbles belonging to the edifice which were found in position; and it is to be presumed that they would not have escaped the spoilers of the Mausoleum, had it not been for the difficulty of displacing the immense stone placed upon them,—a difficulty which we only overcame by the application of two screw-jacks.

The position of this remnant of marble pavement leads me to infer that a passage paved with marble led from the great stone into the royal sepulchral

[g] See Herod. ii. 121.

[h] These slabs extended as far as the lower gallery, to be described hereafter, of which they formed the roof.

[i] In the Plan this drain is marked "Marble Drain." It is also shown in the upper View, Plate VIII.

chamber, which may have been nearly in the centre of the basement, where the cutting is deepest, and to which part the drain already mentioned, and a similar drain running eastward, both lead.

The whole of the hollow Quadrangle was filled with remains of architecture and sculpture. The quantity of these fragments was so great that it would have been impossible to specify their exact position on the Plan, nor would such information be of any value in reference to the majority of the marbles, which had evidently been rolled and pitched out of the way by the spoilers of the tomb, as they removed successive courses of masonry. It may, however, be worth while to indicate the position of the larger and most remarkable remains of architecture.

The colossal equestrian figure, and the figure draped to the knees found on the west side, have already been noticed *ante*, p. 90. In the same line, between these sculptures and the south-west corner, was found the best-preserved of the two portions of a *lacunar* stone (Plate XXVII., fig. 8); also a piece of cornice from an angle of the *Pteron*, a female figure in relief driving a *quadriga*, which had formed part of a frieze representing a chariot race, and several hind quarters of lions.

In the eastern part of the Mausoleum, near the point where the bed of the foundations is shallowest, was a colossal statue, lying with the back uppermost.

On turning it over, it proved to be a draped male figure seated in a chair. The surface, having been

exposed to much moisture in the soil, was not in a very sound condition.

Along the eastern margin were found four slabs of frieze, corresponding in scale and subject with those removed from the Castle in 1846. These four slabs represent combats of Amazons, on horseback and on foot, with Greeks (see Plates IX., X.). They were found lying in a row, and appear to form one continuous composition. They are in very fine condition, and, notwithstanding the extreme salience of the relief, are but little mutilated. It may be inferred from these circumstances that the spot where I discovered them is not far from their original position on the edifice, as, from the great weight of the slabs, one of which is 5′ 8″ in length, by 1′ in thickness, they could hardly have undergone much shifting about without presenting more signs of bad usage on their surface.

As we know from Pliny that the sculptures on the east side of the Mausoleum were executed by Scopas, it does not seem unreasonable to suppose that these four slabs of frieze are from the hand of that celebrated artist.

On the south side of the Quadrangle, we met with but little sculpture, and that in bad condition. Two fragments of a chariot frieze were found here, ranging with that already noticed from the west side. Towards the north margin were several hind quarters of lions, in good condition, one of which is marked on the crupper with the letter Γ, and another with the letter Λ. About the middle of

the west side, I found part of a colossal draped figure, broken off at the waist and the hips.

It will be seen, by reference to the Plan, that the line of cutting on the north side of the Quadrangle is not continuous, but that, at a few feet from the north-west angle, a break occurs, extending for 59′, after which the line of cutting is resumed. In this interval were three square piers, and a fourth pier occurred in the space between the staircase wall and the north-west corner of the Quadrangle. These piers were all built of squared blocks of native rock. Their courses were not properly bonded, and from the want of solidity in the masonry, it is evident that these piers formed no part of the structure of the Mausoleum. The three piers on the north had their southern faces flush with the north side of the *peribolus*. All the four were carried to the same height, and this level, as will be seen by the sections, is nearly uniform with the native rock at the foot of the north wall of the *peribolus*, at the head of the stair, and all round the west, south, and east sides, where no break occurred in cutting the lines of the quadrangle.

This level must have nearly corresponded with that of the original surface of the platform, which, for reasons which I shall presently state, must, I think, have been raised a little above the rock.

The irregular excavation in which the north piers were placed, was filled up with the same white soil which we found over the stair on the west. Behind the piers were several drums of circular

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columns, roughly hewn out of the native rock, which were rudely piled up, as if in a quarry. These drums exceeded 3′ in diameter.

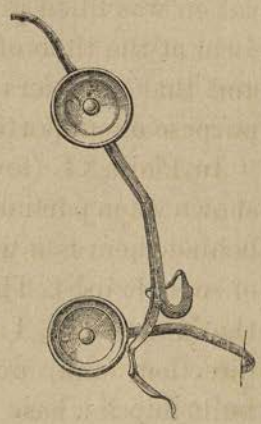
There can hardly be a doubt that all this excavation was filled in to the general level of the platform at the time of the building of the Mausoleum, and that the piers were made at that time for the purpose of supporting the soil more compactly.

In Plate XI. (lower View), two of these piers are shown when partially uncovered. It will be seen that behind them is a wall, built of loose rubble, in front of some houses. This wall being full of fragments of the Mausoleum, I continued the excavation in this direction, and, on taking down the wall, found built into its base the tail of a colossal horse, in white marble. Digging down below this foundation, I came to a wall of white marble blocks, beautifully jointed in isodomous masonry. On the top of this wall was a lion, resting apparently as he had fallen. His legs and tail were broken off, but the entire body was in the finest condition. The tongue of this lion was, when first discovered, painted red. Behind this wall, to the north, was a mass of large marble slabs, lying piled one over the other in the earth, and intermixed with statues. After removing these slabs carefully, we extracted the following sculptures:—

1. The forehand of a colossal horse, from behind the shoulder to the top of the neck. Round the chest was a band, uniting at the crest with another band, which passed round the body. This harness showed that the horse belonged to a *quadriga*.

Half of the head of this horse was found here, and the other half under a house a little to the east. The bronze bit and bridle still remained attached to

Horse's head with bronze bit.



Part of bronze bridle.

the head, which, since its arrival in England, has been united to the body.

2. The hinder half of a colossal horse, corresponding in scale with No. 1. This portion extends from the middle of the body to the root of the tail, and measures in length rather more than six feet. The tail extracted from the rubble wall has been fitted on to the hind quarter. At first I supposed the two portions of horse to belong to the same animal; but, on comparing them since their arrival in the British Museum, it has been decided by competent authorities that they are portions of two different horses. Two hoofs were discovered, one of which was attached to a base.

3. A draped female figure in two pieces. This

statue is remarkable for the rich composition of the drapery. The head has been veiled.

4. A number of fragments of a draped male figure which has been put together since its arrival in England. This statue is now made up of sixty-three separate fragments, and is nearly complete, wanting only the arms and one foot. The head, which was found a few feet to the east of the body, seems, from the general type of the features, to be an example of the ideal portrait, in which the artist sought to give a divine or heroic character, while preserving the traits of individual likeness.[j] It was on this account that, on first discovering this head, I considered it as the portrait of Mausolus, an opinion which has since been very generally adopted.

5. A colossal female head, with a double row of stiff formal curls round the forehead.[k] This was found about two feet to the north of the marble wall, and a little to the west of the house on the extreme left in Plate XI.

6. A male beardless head, of great beauty, with flowing hair, probably representing Apollo. When found, this head was split in three pieces, which have since been reunited.

7. The head and shoulders of a lion, well preserved.

8. Part of a bearded head, found with the head of Mausolus, a few feet to the east of the horse.

[j] Engraved Plate 1, of this volume.

[k] Engraved Plate 2, of this volume.

HEAD OF MAUSOLUS.

Of this only three-quarters of the face has been preserved, having been split off from the rest. It is rather larger than life size; the portion of the face which has been preserved is in the finest condition. The countenance is exceedingly beautiful, and may, like the head of Mausolus, be a portrait. Close to it I found the lower part of an archaic head which I should ascribe to a much earlier school than that of Scopas.

This head had no neck, but issued from a base, the original form of which cannot now be ascertained, on account of its mutilated condition.

9. The body of a colossal ram, from the shoulder to the tail, found at the distance of about three feet from the head No. 5. This ram is erroneously described in my Report to the Foreign Office[1] as a leopard. The diagonal lines channelled on the surface represent the fleece.

The marble slabs found intermixed with these sculptures were ascertained upon examination to be steps, and to present certain peculiarities of form and dimensions, which led Lieutenant Smith and myself to consider them as the steps of the pyramid. The reasons for this opinion are fully given by Lieutenant Smith in a Report[m] which will be considered in a later part of this work. In the sides of many of these slabs copper cramps were still fixed, and were generally slightly bent, as if they had been wrenched from their places. One of them,

[1] Papers respecting the excavations at Budrum, 1858, p. 32.
[m] Ibid. pp. 16—21.

broken at one end, is represented in the accompanying cut.

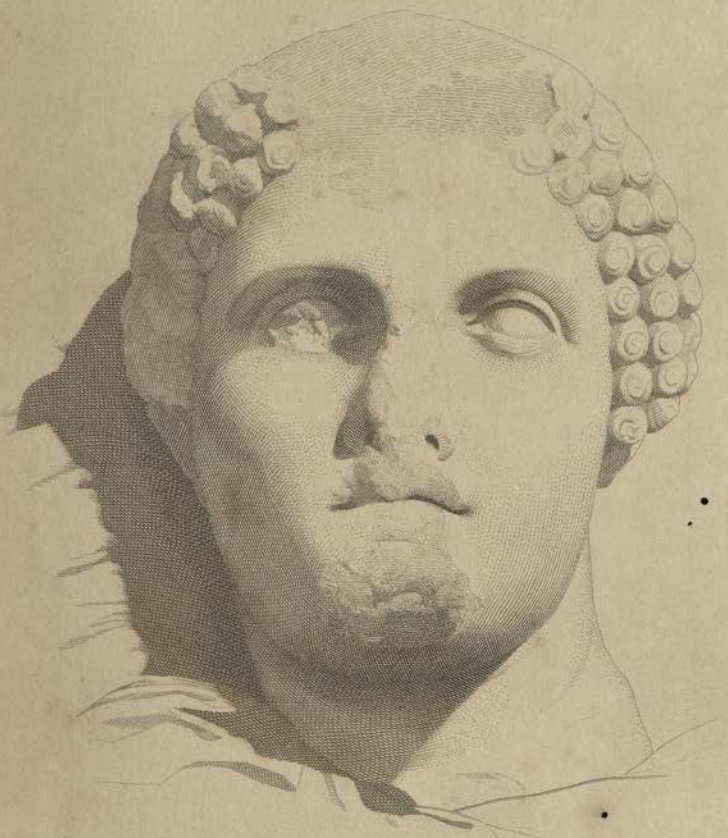
Length 5½ *in. by* 1½ *in.*

With these architectural marbles were also found a number of lions' heads from the cornice of the Mausoleum. These presented very clean fractures at the back, and had the appearance of having been cut off from the cornice by the fall of some heavy mass from the upper part of the edifice.

The scale of the two portions of the colossal horse, and the character of the harness, led me at once to the conclusion that these had formed part of the chariot group which, as we learn from Pliny, surmounted the Mausoleum, and which was the work of Pythios. Among these remains we met with some fragments of wrought marble, which I at first supposed to be part of the pole of this *quadriga*, but which subsequent discoveries showed to be spokes of one of its wheels.

There was also found a pillar of marble tapering upwards like a Greek *stelé*, and presenting a rectangular transverse section.[n] This was united at its lower end with a base of the same thickness as that attached to the horse's foot, and, like it, roughhewn. The upper end of this pillar has been broken away, but it corresponds in dimensions with a

[n] Plate XXV. figs. 11, 12.



FEMALE HEAD

FROM THE NORTHERN PERIBOLUS WALL, MAUSOLEUM.

rectangular hollow, cut under the belly of the colossal horse; and from this coincidence, and the character of its base, there can hardly be a doubt that it formed one of the supports of the chariot group.

All these marbles were discovered along the north side of the north wall, in a strip of ground not exceeding 60′ in length, by 20′ in width. They were piled one on another, and had evidently never been disturbed since they first fell from the building. This was proved not only by the freshness of the fractured edges, most remarkable in the case of marbles of such weight, but also by the quantity of wrought copper found with them, as has been already mentioned. It is impossible that the bronze bridle and the cramps of the steps could have escaped the cupidity of the Middle Ages, had these marbles been exposed to view for any length of time after their fall. The soil in which they were lying was a fine sand, evidently deposited by the action of water.

It will be seen by a comparison of the sections of the ground at A B and E F, with the plan of the environs of the Mausoleum (Plate II.), that, to the north of the marble wall, the native rock slopes upward, till it meets the steep side of the conical hill to the north of the road. In the rainy season a considerable volume of water descends from the southern side of this hill towards the sea, and was anciently conducted into cisterns by subterraneous channels; but these ducts having been blocked up after the decay of the ancient city, the water must have lodged against the marble wall till it had deposited a sufficient silt to fill up the narrow strip

of ground north of it, and thus completely to obliterate all trace of the wall itself.

On reference to Plate VI., it will be seen that the best preserved portion of this wall consisted of three courses, of which the lowest was composed principally of blue marble, and rested on foundation-blocks of green stone and native rock. In this course the stones were of great length, the longest being 8′ 8½″ by 2′ 1½″, by 1′ depth. At intervals of rather more than 18 paces, a space 5″ wide was left between the blocks for drainage. This course projected beyond the upper courses above 1¼″.

The two courses above were of white marble of a fine quality. In the lower of these courses the dimensions of the longest stones were 5′ 5″ by 1′ 11¾″ depth, by 1′ thickness. Two of these stones, placed back to back, formed the wall. These courses were bonded by ashlar stones, occurring after every fourth or fifth long stone alternately. In the highest of the two courses of marble the depth is diminished to 1′ 8″. The face of the lowest course is finally tooled all over. The marble slabs are finally tooled on their faces for two inches from each edge inwards. The remainder of the stone within this border is roughly tooled. The joints were fitted with extreme care, and the whole work exhibited that sense of proportion and nicety of execution which are the characteristics of Hellenic masonry in its best period. The height of this wall, when discovered, was rather more than six feet. It was probably not carried more than one or two courses higher.

It will be seen by Plate VI. that the stone of the

upper course on which the hand of the Sapper rests, has been driven inward, as if some violent shock had dislocated the upper part of the wall, many blocks of which were found lying intermixed with the marble steps and sculpture behind it. It has been shown that among this sculpture were portions of two or more colossal horses from the marble chariot group which crowned the apex of the pyramid; and, when this fact is taken in connection with the other circumstances already noted, such as the freshly-fractured edges of the sculptures discovered here, the partial dislocation of the masonry in this place, and the distance of the marble wall from the Mausoleum itself, I think that there is no difficulty in explaining how these ruins came into the position in which I found them.

It is evident that an earthquake or equivalent force must have rent asunder the pyramid, hurling a portion of the chariot group and of the steps on which it rested over the marble wall, and probably carrying away the coping of the wall with it in its fall. This must have taken place some time before the occupation of Budrum by the Knights, when the Mausoleum is spoken of as in ruins, and, as it may be presumed, subsequently to the 12th century, when Eustathius writes of it, "It was and is a wonder."

After having removed the sculpture lying behind the wall, I proceeded to follow the wall itself both eastward and westward. After ascertaining that it extended far beyond the limits of the Quadrangle in both directions, I felt convinced that this was the outer wall or *peribolus* mentioned by

Hyginus,[o] which, as he states, was 1340′ in circumference, and doubtless surrounded the *temenos* or sacred precinct of the Mausoleum. It followed, therefore, that the *totus circuitus* of 411′ or 440′ given by Pliny, would not apply to the *peribolus*, as has been formerly supposed, but to the circuit of the tomb itself.

It was not till many months after the first discovery of the northern *peribolus* wall, that I was enabled to trace its return on the east. I came upon the eastern line by driving mines from the west at right angles to a strongly-marked ridge which ran north and south, and beyond which to the east, the platform on which the Mausoleum stood changed its level abruptly, with a fall of about 8′. I found the eastern *peribolus* wall in excellent preservation, but completely buried in the soil at the distance of a few feet to the east of the ridge.[p] It was easily recognized as the *peribolus* wall, from its direction at right angles to the northern wall, and from its material and masonry.

On the south I failed to discover the return of the *peribolus*, but there are good reasons for placing it along the dotted line marked in Plate II., as I shall presently show when I have to describe the excavations on the south side of the Quadrangle.

The ground immediately behind the northern *peribolus* wall having proved so fertile in discoveries, I did not hesitate to purchase the four houses

[o] Hygin. Fabulæ, ed. Scheffer. Amster. 1674. Fab. ccxxiii. Monimentum Regis Mausoli, lapidibus lychnicis, altum pedes 80, circuitus pedes 1340.

[p] See Plate II.

on this side, two of which appear in the lower view, Plate XI. Removing these I proceeded to dig northward as far as the road marked in Plate II. The result of these operations was as follows :—

Immediately behind the spot where I found the great horse, and which is marked by a breach in the garden wall,[q] was a house, described in my official Reports as the Imaum's house. (See Plate IV.) On removing this, I found under the foundations part of the body of a draped female figure; and, built into the chimney, a female head with a veil falling from the back of the neck. The surface of this head is nearly destroyed by fire, but enough remains to show that it was quite equal in style to the heads previously discovered nearer the north wall. To the west of the Imaum's field was a house belonging to a Turk called Mehemet. To the north of the *peribolus* wall in this field were the colossal female head and the body of a ram, described *ante*, pp. 104-5, two bent arms from a female statue, part of a colossal male leg, the head of a lion broken off at the shoulder, some portions of figures from the frieze, and several lions' heads from the cornice. The soil in this field was deeper than in the ground adjacent to the east, where I found the colossal horse and pyramid stones, and the sculptures lay near the surface. It is probable, therefore, that, when they fell, there was a greater accumulation of alluvial soil here than in the Imaum's field further to the east. Hence the sculptures have not been so completely protected by

[q] Shown in Plate XI., Lower View.

subsequent deposit of earth, and much of what fell here may have been destroyed or removed by Turks looking for building materials.

As we advanced northward from the *peribolus* into this field, we found, at the distance of 24′ from the north-west corner of the Quadrangle, a number of drums of columns lying together in the soil, with which were two capitals; one of these, from the difference in the form of the volute, evidently belonged to an angle column. The drums of columns appeared to be lying near the spot where they had originally fallen; and it seems probable that they belonged to the two capitals found with them, one of which, in that case, must have supported the north-west angle of the *Pteron*. The discovery of these capitals is further interesting from the fact, that, though the number of capitals according to Pliny must have been thirty-six, we found three only in the whole excavation in an entire state. This part of the column being more easily broken up than the drums, would be the first to disappear.

Advancing further to the north, we came upon some fragments of two very large marble platters, or *phialæ*. The diameter of one of these is 2′ 6″, and of the other 2′ 4″. The insides are much honey-combed, as if the surface had been long exposed to the drip of water. With these *phialæ* were found a portion of a large bowl of dark limestone, and several fragments of smaller marble *phialæ*. These *phialæ* may have been placed in one of the sepulchral chambers in the tomb.

Proceeding a few yards further to the north,

I discovered, among the foundation stones of Mehemet's house, an oblong block of marble, 1′ 7½″ long by 1′ 3½″ high. This is sculptured in the form of a *pyxis* or casket, such as may be seen in vase pictures. On each of the four sides is a group in exceedingly low relief. On one of the long sides the scene represented is as follows:— On the right is a figure seated in a chair, the feet on a footstool. The lower half of the body is clad in a *peplos*, the upper half naked; the right hand is raised to the head, the left stretched out in front, as if holding a *phiale*. It is uncertain whether this is a male or a female figure. In front of it is a female figure, clad in a talaric *chiton*, playing on a lyre. Behind her is a tree, at the foot of which another female figure is stooping, taking something out of a *pyxis* on the ground.

The subject on the opposite side has perished, all but the upper part of a tree.

At one end of the casket is the following group: On the right, a female figure seated in a chair, the lower half of her body clad in a *peplos*. Her right hand rests on the seat behind her; the left is half-extended, as if holding out some object. In front of her is a seated female figure, by whose side is a standing figure.

At the other end of the casket are three figures. On the left is a female figure, seated in a chair, her feet on a footstool. She is clad in a talaric *chiton* and *peplos*. Before her is another female figure, seated on a low stool, and a standing female figure,

wearing a *chiton* and *peplos*, and holding out something towards the figure in the chair.

These reliefs have been very much injured. Enough, however, of the original surface remains to show the great beauty of the composition. On the other hand, the execution is somewhat hasty and careless; and from the general style it may be inferred that this casket is of a date rather subsequent to the Mausoleum. It appears to belong to the same period as the later Athenian vase pictures, with polychrome figures on a white ground; and some of the later Nolan vases, with red figures. These pictures are also characterized by graceful but careless drawing.

This casket may have been placed at the foot of some female statue, but it is more probable that it has been taken from some sepulchral chamber connected with the Mausoleum. Having been found so near the large marble dishes, it may have been removed from the same part of the tomb. Among the fragments previously discovered, were two portions of the lid of a marble *soros*, with a low pedimental roof, and chiselled with much care.[r] These were found within the north-west angle of the Mausoleum.

At the distance of 49′ north of the *peribolus* wall, I came to another wall, running parallel to it from east to west.

This wall is built of ashlar stone, roughly dressed,

[r] The surface of these fragments is wrought with much refinement, and it is not unlikely that they formed part of the *soros* in which the body of Mausolus was found by the Knights.

the masonry being rustic work. There were about four courses of these stones, rising to an average height of 5′. The wall preserved this character of masonry for a length of 71′ from opposite the south-east corner of the Quadrangle, till it entered Mehemet's field; after which point the ashlar-work ceased, the wall having been repaired in Byzantine or later times. In the part built of ashlars were four doorways, the widths of three of which were respectively 5′ 10″, 4′ 8″, and 4′ 3″. The thresholds of these doorways were formed of grey limestone, the side jambs of green stone. The intervals of wall between the doorways were, respectively, 13′ 2″, 14′ 3″, and 14′ 8″. The masonry was throughout very inferior to that of the adjacent wall of the *peribolus*.

The irregularity in the width of the gates and in the intervals between them, and the general roughness of the work, led me to consider this wall as of a later period than the time of Artemisia. I did not, therefore, pursue it further, though it appeared to continue for a considerable distance both east and west, in a direction oblique to the modern paved road, which, as has been already noticed, passes through Budrum to the north of the Mausoleum.

It is probable that an ancient street connecting the eastern and western gates of the city, and compared by Vitruvius to a *præcinctio*, passed immediately north of the *peribolus* wall; for here, at the distance of 15′ from the wall, was a raised ledge cut out of the native rock, which appeared like the kerb of an ancient paved street, and ran parallel with the *peribolus* wall.

As I advanced further to the north, the fragments of the Mausoleum became less and less numerous.

Close on the line of wall in Mehemet's field was the head of an Amazon rather less than life-size, and much defaced. The back of the head has been split off, as if it had formed part of a relief.

Seeing that the soil yielded so little here, and being unwilling to break up a public road without good reason, I did not carry my excavations further north than the line of rustic wall already described; but, on examining the walls of the fields beyond the road, I made the following discoveries:—

On the north side of the modern road opposite to the Imaum's house is a high wall which contains a few fragments of marble from the Mausoleum. Out of this wall I extracted a fine piece of the cornice of the *Pteron*.

Ascending the slope of the hill to the north of the road for about 20 paces, I noticed in the rubble wall of a field a large mass of white marble, which, from the fineness of the grain, I knew to belong to the Mausoleum. On taking it out, I found it to be the head of a lion broken off at the neck, which had been built into the wall with the face turned inwards. By some singular chance, the sculpture had received but little injury, and both in composition and condition this proved to be one of the finest heads discovered.

This fragment was probably transported to the wall where I found it from the mass of marble which fell on the north side of the *peribolus*.

Beyond Mehemet's field on the west is a large

field planted with fig-trees, marked in Plate II. as belonging to Ahmet Bey. I dug as far as the boundary wall separating these two fields, and, as no further traces of marble from the Mausoleum appeared, did not pursue the excavation further in this direction. To the east, in a line with the three houses north of the *peribolus* wall, was a fourth house, belonging to a Turk called Mehemet Ali. This stood nearly at the north-east angle of the *peribolus*, and on its northern side.

Under this house were two necks from statues in bad condition, a lion's leg, and several very interesting fragments from reliefs set in panels. A few feet further to the east we found the left foot of a colossal male figure and part of a lion's paw, both with a fragment of base attached.

At this spot the rich vegetable soil which forms the upper surface of the platform appeared as a vein about 8′ deep, distinct from the soil round it. In this black vegetable soil I found two stones, both of which may be from the Pyramid. One is in form like a step, but differs from any of the steps previously discovered, as the tread is only 9″ in width, and between the ridge at the back and the tread are four holes cut for plugs or cramps (Plate XXV. figs. 4, 5, 6). Close to this marble we found the head of a lion broken off at the neck, and, beside it, a portion of the neck. These fragments, and the two marbles supposed to be from the Pyramid, were found at the distance of not less than 170′ from the centre of the Mausoleum. Whether they were hurled to the spot where I found them on the fall of the

building, or dragged thither subsequently, cannot now be ascertained.

I shall now proceed to give an account of the excavations to the east of the Quadrangle. It has been already stated that the platform on which the Mausoleum stands terminates in a ridge on the east, below which the ground sinks abruptly about 8′, and that a few feet beyond this ridge I discovered, by mining, the east wall of the *peribolus*. This change of level occurs at the distance of about 85′ from the east side of the Quadrangle.

As we advanced from the margin of the Mausoleum towards this ridge, we found that at the distance of 7′ beyond the eastern edge of the Quadrangle, the native rock was cut vertically to a depth of 5′ to 10′, and 1′ to the east of this vertical cutting was a wall formed of ashlar blocks, well fitted together, and apparently of Hellenic masonry. This wall runs parallel to the east side of the Quadrangle extending from the north *peribolus* wall to a point a little to the south of the south-east angle of the Mausoleum, beyond which we were unable to trace it. In my first reports on this wall I have described the space between it and the cutting as a drain.[s] Subsequent research led me to consider that this was the *revêtement* of the vertical cutting, and that the interval of 1′ between the back of the wall and the rock was originally filled with rubble.[t]

[s] Papers, &c. p. 23. Ibid. p. 30.

[t] Further Papers respecting the excavations at Budrum and Cnidus, 1859, p. 92.

I shall presently show that there is reason for believing that this wall met a similar wall on the south side, to which it runs at right angles, and that both were intended as terrace-walls, marking a step in the platform round the margin of the Quadrangle.

After having laid down and measured this wall, we continued to advance eastward, finding at an average depth of 10′ the rocky platform, which, at about the same level, forms the margin round the Quadrangle on its other three sides.

At the distance of about 29′ from the eastern side of the Quadrangle, the rocky platform terminated abruptly in a vertical cutting running parallel to the wall just described.

On digging down here I found a trench 4′ wide, with an average depth of 25′, which had been cut into beds of different levels, as if for the reception of a wall. This trench extended from the north wall of the *peribolus*, which it met at a right angle, nearly to a house marked in Plate II. The east side of this trench was formed by a wall of isodomous masonry, consisting of a single course of squared blocks, averaging in size 2′ by 18″ by 15″. These blocks were dressed only on their eastern or outer face, and were nearly all of the native rock of the platform; but among the lowest courses were two limestone blocks, which had been evidently taken from some earlier building, and one of which had a fine joint all round. The masonry of this wall was very coarse and careless, and presented no charac-

teristic of good Hellenic work.[u] The space between the wall and the cutting I found filled with earth. To the south, within a few feet of the point where the wall ceased, this trench rose by steps to a much higher level. Such a change of bed precludes the supposition that the trench was used for drainage, as the fall of the ground was to the south, and there was no outlet for water in the rock under the *peribolus* wall, where the trench terminated on the north.

The wall ran 157′ due south, beyond which we could not trace it, as the house marked in Plate II. stood in our way. No trace of a return, however, appeared on the south side.

It is certainly remarkable that this wall should run parallel to the line of the Quadrangle and Eastern *peribolus;* but, if it was meant to be seen as a terrace-wall, the coarseness of its materials and masonry would have accorded ill with the fine marble of the northern *peribolus* wall which it meets at a right angle; nor did the character of the ground east of this wall indicate a change of level such as would mark a terrace wall.

Advancing eastward from this line, I found that the native rock only appeared at a depth of from 20′ to 25′ (see the section C D, Plate V.). The upper surface of the soil was the black vegetable *humus* which covered the whole Quadrangle and platform round it. Below this, at the depth of from 6′ to 8′, was the same white soil which I had found over the staircase on the west, and between the north margin of the

[u] Several views of this wall and of the cutting are given in Plates XII. and XIV.

Quadrangle and the north *peribolus* wall. This soil, composed of rubble, intermixed with large blocks of stone, was all apparently formed of the decomposed rock of the platform. Beyond the second wall on the east, the vertical section of this lower soil presented a curious series of zigzag strata, such as would be formed by casting in rubble and soil from opposite directions.

In these strata were veins of chippings of green stone. The occurrence of these veins seems to me a proof that the platform was artificially prolonged in an eastern direction from the place where the native rock failed, and that this prolongation took place at the time of the building of the Mausoleum. It might then have been accomplished in a very simple and economical manner by shooting into the deeper parts the rubble as it accumulated in levelling the site and dressing the stones for the Mausoleum.

It is specially to be observed that these zig-zag strata rose fully to the level of the rocky margin west of the trench, and such an artificial stratification proves that the wall was intentionally concealed at the time of the making of the platform, in the level of which it consequently does not mark a change.

I am therefore inclined to think that this wall has no connection with the plan of the Mausoleum, and that it is anterior to it. What its purpose may have been, it is difficult to conjecture.

CHAPTER V.

EXCAVATIONS ON SITE OF MAUSOLEUM.

Excavations on eastern side. Discovery of archaic terracotta, dagger, and *soros*. Reasons for thinking that the platform of the *peribolus* occupied the site of an ancient quarry and cemetery. Votive terracottas in the soil. Eastern *peribolus* wall. Excavations to the south of Quadrangle. Staircase. Discovery of fragments of wheel and of colossal horse. Wall on south side; its probable purpose. Unsuccessful attempt to find southern *peribolus* wall; its probable line. Form of the *peribolus* described by Hyginus. Approach to the Mausoleum from the Agora, probably by a flight of steps. Ground to the west of the Quadrangle. Fragments of Pyramid steps in house at the south-west angle of Mausoleum. Stelé representing Apollo and Dionysos. Reasons for thinking that the staircase on the west, and the great stone at its foot, mark the entrance to the royal sepulchral chamber. Subterraneous galleries round the Quadrangle. Lower gallery for drainage of Mausoleum. Upper gallery; its three branches. Point of intersection of one of these branches with stair on south. Adjacent sepulchral chambers. Discovery of large sardonyx in upper gallery. Reasons for considering this gallery anterior to the Mausoleum. Varieties of its section in different places. Gallery F. The site of the Mausoleum originally a quarry. Tombs. Other instances of ancient quarries which also served as cemeteries. Character of the hill out of the base of which the site of the Mausoleum is cut.

Up to this point in our excavations the east part of the platform had not yielded any remains of sculpture in the lower soil, with the exception of an isolated fragment of a lion's shoulder, found at a great depth near the wall described in the

last chapter. The soil being thus unproductive, and the expense of so deep an excavation very great, I did not dig over the whole of the ground between this wall and the eastern *peribolus;* but, having removed the black upper soil, I explored the subsoil partially, by sinking pits and driving galleries. Cutting a broad trench on the ridge, near the eastern *peribolus* wall (see Plate II.), we found, at a depth of about 6′, a layer of splinters of marble and green stone, intermixed with fragments of the freestone rock of the platform, by the decomposition of which the whole had been amalgamated into a compact surface.

Below this layer was a mass of rubble composed of fragments of native rock, such as would accumulate near a spot where it had been quarried out. We dug in this rubble to a depth of 35′ before bottom was found. The rock here was cut in ledges and angles, as would be the case in an ancient quarry, and, on exploring it by mines in several directions, I found the same kind of cuttings.

Immediately to the east of the wall described p. 119, and near its southern extremity, is a large rectangular cutting, which I at first supposed to be a sepulchral chamber.[a] (See Plate III.)

More extended excavation, however, showed that this was only a cutting in the quarry.

At the depth of 23′ below the surface was a coffin or *soros*, about 7′ long, cut out of stone, the ends being rounded, two views of which are given,

[a] Papers, &c., p. 48. Further Papers, p. 7. In Plate III. this *soros* is marked as "Sarcophagus."

Plate XII. This *soros* was empty, and had no lid. Under it was a depth of soil of 2′ 6″.

On removing the earth at the sides of this *soros*, I found an iron dagger, and a terra-cotta vase in the form of a female head, $3\frac{6}{8}$″ high (see the cuts). This

Length 10½ *in.*

vase is an interesting specimen of archaic modelling; and, having a *modius* on the head, perhaps represents Persephone.

It is probably of the same period as the alabaster vase bearing the name of Xerxes; that is to say,

more than a century earlier than the date of the Mausoleum.

There can hardly be a doubt that this terra-cotta and the dagger belong to the *soros*, at the sides of which they were lying, and the discovery of these sepulchral objects at so great a depth, and bearing the mark of such high antiquity, corroborated me in an opinion which I had already advanced, that the quarry was used as a cemetery in times antecedent to the building of the Mausoleum on its site. That such was the case will be shown more particularly when the excavations south of the Quadrangle are described.

The fact that the platform was artificially prolonged to the east of the line where the native rock fails, is shown by the occurrence of the strata of chippings of marble and green stone, not less where these run in zigzag veins, than in the part nearer the *peribolus* wall, where they form a solid horizontal surface,[b] the amalgamation of which, in the course of centuries, must have been caused by some natural process in the soil, analogous to that by which a peculiar kind of recent rock is formed along the sea-beach on the coast of Asia Minor.[c]

[b] On the Acropolis at Athens are several platforms, partly artificial. "The layers of the made ground are very evident close to the Parthenon on the south side. They are composed of chips of stone, the lowest being of the red marble of the rock of the Acropolis, the second of the white marble of Pentelicus, and the upper layer of the magnesian limestone of the hills near the Piræus."—Murray's Handbook of Greece, 1854, pp. 153-4.

[c] Beaufort's Caramania, p. 182. Spratt and Forbes, Lycia, p. 188. The latter observes that this artificial beach is formed by carbonate of lime draining through the shingle.

On the level surface produced by these amalgamated chippings, we met with many fragments of pottery, among which were several small terracotta figures, beautifully modelled in the same style as the sculptures of the Mausoleum. (See Plate LX. figs. 1, 2, 3, 6.) These were probably votive figures, brought to the tomb of Mausolus, and deposited within the sacred precinct of the *peribolus*. The *temenos* of Demeter and Persephone, subsequently discovered at Cnidus, was in like manner strewn in places with lamps and terracotta figures.

I have already noticed the discovery of the eastern *peribolus* wall by mining. After having ascertained the existence of this wall by driving mines eastward till I encountered its line, I proceeded to connect these transverse mines by one long gallery, extending from the north-east corner of the *peribolus*, southward. For 59′ from the north-east angle, the line of the wall could be traced by its foundation courses only, which consist of large blocks of the native rock of the platform. After this, for an interval of a few feet, the line of wall became less distinct, but could still be traced by the bed cut in the rock to receive the foundations, till we came to the point where the dotted line ceases in the Plan. Here the wall became very distinct, being composed of two, and sometimes three, courses of long blocks of white marble, beautifully chiselled and jointed. The foundations of this wall were much lower than those of the northern wall, and in its lower courses it must have served as a *revêtement* to the artificial platform.

In the part opposite to the east side of the Quadrangle a very small elephant, made of ivory, and evidently a votive object, was found on the upper course of the wall.[d]

The disappearance of the wall near the north-east corner may be partly explained by the fact that a house, one wall of which stands on the dotted line (see Plate II.), is chiefly built of the marble blocks of the *peribolus*, easily recognized by the peculiar dressing of their faces. To the south I was unable to trace the wall further than the point to which it is laid down in Plate II.

The walls of the houses and fields more to the east of the platform did not appear to contain any fragments of the Mausoleum. I did not, therefore, think it necessary to extend the excavations in this direction beyond the limits of the platform itself.

On the south side of the Quadrangle the results of our excavations were as follows:—The margin of the platform on this side was the native rock of the field, as will be seen by the Sections. This was covered by a recent black soil, averaging in depth from 4′ to 6′.

I have already remarked, that, to the east of the south-western angle, a break occurred in the south line of the Quadrangle, extending for 28′. It will be seen by Plate III. that, in this interval, a stair of fifteen steps is cut in the native rock, its width lying obliquely to the side of the Mausoleum.

As this stair is not cut parallel to the side of the

[d] The woodcut represents the actual size.

Quadrangle, there is no reason for considering it a part of the design of the Mausoleum. It was, probably, made at an earlier period in connection with the gallery, which here intersects it, and which will be more particularly described hereafter.

This stair is flanked on either side by a vertical cutting of rock. This cutting is continued on the east flank beyond the upper gallery, till it intersects the south side of the Quadrangle, as is shown in Plate III.

A view of this stair, together with its plan and section, are given, Plate XIII. It will be seen by the enlarged section C D in this Plate, that on the face of the western cutting, two holes, about $4\frac{1}{2}''$ square, are cut to a depth of about 5″, the lowest of which is 2′ 6″ above the level of the lower step.

The steps of the stair were much broken and very irregular. A rubble wall crossed the lowest step obliquely.

Parallel with this stair, and at the distance of about 48′ to the east, are two sepulchral chambers cut in the rock, which will be more particularly described hereafter.

The fragments of sculpture and architecture found in this soil were neither so important nor so well preserved as those on the northern margin of the Quadrangle; they were, however, more numerous than the remains found on the western and eastern sides.

The following may be noted as the most interesting:—

1. At the distance of 32′ from the edge of the

Quadrangle, I discovered a portion of a draped female figure from the waist to the knees. This figure was probably from 7′ to 8′ high. The surface has suffered a good deal, as is the case with nearly all the sculpture found on the south side.

2. A youthful male head of heroic character, rather exceeding the size of life. The features have great beauty of expression, but are much defaced.

3. A lion's paw, remarkable for the wonderful delicacy with which a protruded claw is sculptured.

4. A male head, life-size and bearded, wearing a Phrygian cap; in bad condition.

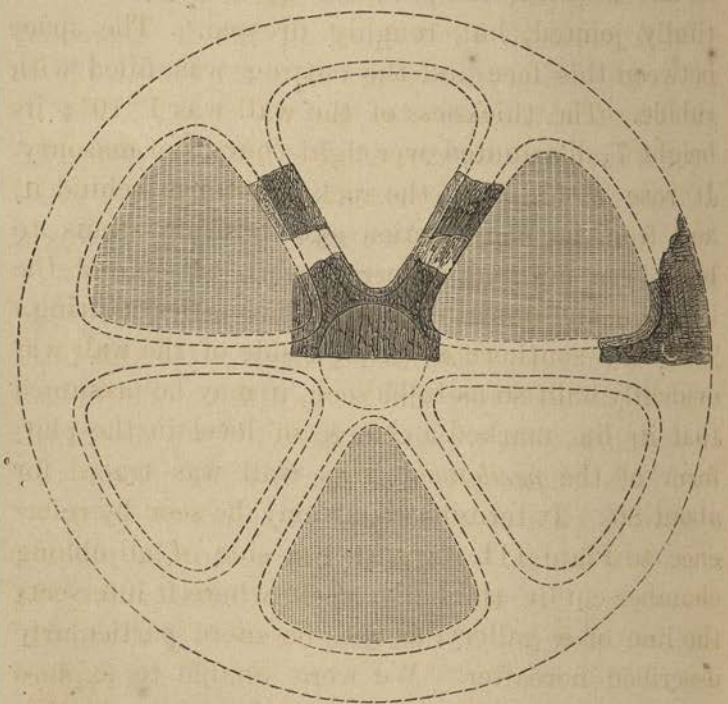
5. A much defaced fragment of a colossal female head. In head-dress and general style this head must have been very similar to the one discovered on the north side, which has been already described.

A little further to the south were portions of a marble chariot-wheel and the hough joint of a colossal horse, known to belong to the chariot group from its correspondence in scale and style with the portions of that group found on the north side.

The fragments of wheel consisted of part of the outer circle, half the nave, and a piece of one of the spokes. I had previously discovered several fragments of the spokes, intermixed with the sculpture north of the *peribolus* wall in the Imaum's field.

The woodcut on the next page gives a restoration of the wheel made by Mr. Pullan, from which we obtain for its diameter 7′ 7″, a dimension which, as will be subsequently shown, is of great importance in reference to the restoration of the Mausoleum

itself. It will be seen by the woodcut that the wheel has six spokes, and that the alternate intervals between each pair of spokes were closed; an arrangement which, of course, gave greater strength



to the wheel to bear the weight of the marble figures in the chariot. In the whole design the form of a rose is imitated, the resemblance being rather suggested than directly sought for. This particular form of wheel is characteristic of the best age of Greek art, as may be seen by reference to coins and vases. These fragments were found at a depth of nearly 2′ below the surface.

At the distance of 40′ from the south side of

the Quadrangle, the rocky platform suddenly terminates in a vertical cutting, running east and west. This cutting was faced by a wall of isodomous masonry running parallel to it. The southern face of this wall was composed of square blocks beautifully jointed, but roughly dressed.[e] The space between this face and the cutting was filled with rubble. The thickness of the wall was 1′ 10″; its height 7′, distributed over eight courses of masonry. It rose within 2′ of the rocky platform behind it, and from its construction and position seems to have been built as a terrace-wall, to conceal the irregular and unsightly face of the vertical cutting.

As the southern or exterior side of the wall was evidently built so as to be seen, it may be presumed that its line marked a change of level in the platform of the *peribolus*. This wall was traced for about 80′. It terminates, as may be seen by reference to Plate III., against the side of an oblong chamber cut in the native rock, where it intersects the line of a gallery, as will be more particularly described hereafter. We were unable to explore its course further to the east, not having possession of the ground; but, if the wall was continued beyond this point, its lowest course must have been about 6′ higher than in the rest of the wall. I have already noticed that, on the east side of the *peribolus*, at the distance of 9′ from the east side of the Quadrangle, is a wall precisely similar in the character of its masonry to the one just described.

On looking at the direction of these eastern and

[e] A view of this wall is given in Plate XII.

southern walls in Plate III., it will be seen that, if prolonged, they would meet, forming a right angle, parallel to the south-east angle of the Mausoleum.

I am inclined to think that they did form such an angle, but, as the place where the two walls would meet is under a house which is still standing, this point could not be ascertained.

As the exterior surface of these walls was carefully dressed, it is to be presumed that their upper courses at least were intended to be seen; indeed it is difficult to understand what could be the object of concealing the rock by a *revêtement*, unless this facing of masonry marked a change of level in the platform.

There is, however, this difficulty—that at the two points to which the southern wall has been traced, and at the southern extremity of the eastern wall, the vertical cutting ceases, and the rock reappears at the same level, or nearly so, as the margin of the Quadrangle.

So that, if we suppose the change of level marked by the *revêtement* wall to have been continuous along the east and south sides, the upper courses of this wall must have been at least 1′ higher than the level of the rock behind; in other words, the level of the margin of the platform on the east and south sides must have been higher than the surface of the native rock by as many inches as would be required to make a step at the line of *revêtement* wall.

If the two *revêtement* walls really formed part of the plan on which the site was laid out, which, from

their parallelism with the lines of the Quadrangle, as well as from the goodness of the masonry, seems highly probable; then they could hardly have been intended to be concealed under the soil, but must have formed a feature in the site as terrace walls.

In that case, it cannot be supposed that the south wall and the southern extremity of the eastern wall, would have died away, as they do at present, into the higher level of the rock on each side, because such broken lines of *revêtement* would have been most unsightly, and it is difficult to see what purpose they could have served. There is, then, but one way of reconciling all these difficulties. We must suppose that the margin of native rock between the south and east sides of the quadrangle and the respective *revêtement* walls, was covered with soil, so as to obtain a perfect level.

It is to be observed that this marginal surface of native rock, though generally uniform in level, presents many inequalities which it may have been thought better to conceal by forming an artificial terrace. The depth of soil thus laid on did not probably exceed two feet at the edges of the terraces, because it is evident, from the slightness of the masonry, that the *revêtement* walls would not have borne much lateral pressure.

It may be remarked that this change of level in the *peribolus* would occur on the two sides on which the platform would be approached from lower ground, and was probably intended to set off the elevation to greater advantage.

There would not, therefore, be the same necessity

for terraces on the west and north sides, as will be seen by reference to Plate II.

If, therefore, the levels of the south and east margins were artificially raised, it is probable that the entire platform contained within their angle, as far as the west and north walls of the *peribolus*, was in like manner raised to one level by the addition of more or less soil, as it might be required. Indeed, the surface of the rocky platform to the west of the Mausoleum was disfigured by so many unsightly cuttings, that it is more probable that its surface was thus concealed, than that it was left exposed.

To the south of the line of terrace-wall just described, the native rock was only found at a depth ranging from 12′ to 20′, being cut into steps and ledges, as on the east side.

The same white lower soil was found here under the black *humus* as in other parts of the platform where the rock fails.

Not being able to obtain possession of the ground to the south of this terrace-wall, I contented myself with driving mines through it in search of the southern *peribolus* wall.

I had hopes that the line of this wall would be indicated by a very conspicuous ridge, running from east to west a little to the south of Mehemeda's house (see Plate II.), on which the garden wall of this house is built, and to the south of which the ground makes an abrupt step. I advanced, accordingly, a few feet to the south of this ridge, but without meeting with any trace of the foundations of the *peribolus* wall. There is, however, a second ridge a little fur-

ther to the south, which, in the plan, ranges with Ali Bey's house, and which runs parallel with the northern wall. Now, it is remarkable, that the entire length of the northern *peribolus* wall laid bare by excavation was 337′, and that the Quadrangle of the Mausoleum is nearly in the centre of this length. The entire circuit of the *peribolus*, according to Hyginus, was 1,340′. One fourth of this sum would be 335′, which, supposing Hyginus to have used the Greek foot, would, in round numbers, equal 339 English feet.[f] This length so nearly corresponds with the length of wall actually traced, that it is probable that the four sides of the *peribolus* formed a square.

If, assuming this to be the case, we measure off with the compass 338′ from the north wall southward, the line of the southern wall will be found to fall exactly on the second ridge marked in Plate II.,[g] a little beyond the furthest point which we reached by mining.

The western *peribolus* wall would, in that case, have passed through the house of Ahmet Bey, to the west of which we discovered no trace of the Mausoleum, either in the walls, or on the surface of the fields.

Such a form of *peribolus* as I have suggested would be most suitable, if we suppose the principal

[f] In this calculation, the authority of Mr. Penrose has been followed, who reckons 100 Greek feet as equal to 101·25 English feet.—"Principles of Athenian Architecture," p. 7.

[g] This is indicated on the Plan by a dotted line on the ridge.

approach to the Mausoleum to have been from the *agora*, which, as we know from Vitruvius, was on the shore of the harbour below. It is probable that the platform of the Mausoleum was connected with the *agora* by a series of terraces with intervening flights of steps, so disposed as to set off the elevation to the best advantage when viewed from below. It will be seen by reference to Plate II., that, if we follow the traces of existing ridges, the south-eastern angle of the platform appears to have been broken away. Perhaps there may have been a flight of steps here, balanced by another flight at the south-western angle; or this corner of the platform may have been cut away by the Knights, to make a road for the conveyance of stone from the Mausoleum to the Castle, to which this angle is the nearest point in the platform.

The western margin of the Quadrangle was explored by excavation as far as the boundary wall, on which three houses are shown in Plate II. This side of the platform yielded very little. The soil, in most places, was not above three feet in depth over the native rock, which was here cut irregularly into shallow beds and steps. In the bend made by the garden wall between the two houses, at the south-west corner of the Quadrangle.(see Plate II.), the rock was cut away irregularly to a much greater depth, being covered here with the same white soil as was met with in the other parts of the platform. On this spot stood a small house[h] belonging to a

[h] In Plate IV. this house is marked as immediately adjoining

Turk named Ismael, which I removed. The walls of this house were chiefly composed of fragments of pyramid steps, similar to those found on the north side beyond the *peribolus* wall. This fact is interesting, when taken in connection with the discovery of the fragments of the chariot wheel and colossal horse; which, as has been already noticed, was found a little to the south-east of this spot. The position of these fragments relatively to the more massive remains from the Pyramid discovered on the north, would rather lead to the inference that, if the Mausoleum was thrown down by an earthquake, the rocking motion must have been from north-east to south-west.

In the house of Ismael was also found a portion of a marble *stelé*, 1′ 6″ wide. Its present length is 1′ 6″; but, as it is broken at either end, the original dimensions cannot be ascertained. On the face have been sculptured, in low relief, two scenes, one below the other. In the lower scene is part of a figure of Apollo, holding in his left hand a lyre; while with his right he raises a *plectrum*. He stands within a cave, the roof of which appears above his head. Over this cave is a higher level, on which is a terminal figure of Dionysos, beside whom stands a female figure wearing a talaric *chiton*. Her *peplos* appears to be gathered into the fold called a *nodus Isiacus*. The head is wanting. On her right is an altar. This relief is coarsely executed, and the marble is of

the Vakuf house. I should here mention, that, by an oversight, the name "Vakuf" is given in Plate II. to the house a little further to the north on the same side, which belongs to Hadji Nalban. See Plate IV.

inferior quality. The subject is curious; but the *stelê* is evidently of a much later period than the Mausoleum.

On the western margin of the Quadrangle, near the south-west corner, is a well, in the walls of which I found two portions of the upper fascia of the architrave of the Mausoleum. The entire architrave consisted of three fascias, the two lower ones of which are on the same marble. It is remarkable how little of the architrave was discovered in the course of the excavations. Of the upper fascias I met with only the two portions described above from the well, and of the lower marble only three fragments.

I have already stated that at the distance of 48′ to the north of the south-east corner the west line of the Quadrangle fails, being interrupted by a wide opening, leading to the staircase already noticed.

At the distance of 26½′ to the east of the foot of this staircase was a great stone, originally designed, as I have shown, to be solidly bolted into bronze sockets in a marble pavement. The space between this stone and the native rock on its south side had been filled up with slabs of green stone, with which it had been wedged in. On the opposite side, as will be seen by Plate VIII., a rebate, or groove, passes down the stone, which must have served to hold in their place the slabs wedged in on this side. From the solidity of its insertion, and its great size, I am led to the conclusion that the great stone was used to close the entrance to the sepulchral chamber in which the body of

Mausolus was deposited, and that it was dropped into its place like a portcullis.[i] This is further proved by the finding of *alabastra*, terra-cotta figures, and bones of oxen, between this stone and the foot of the staircase; for such objects would remain at the entrance to the tomb, after the performance of certain periodical rites, ἐναγίσματα.[j]

I am further of opinion that the stair was cut for the express purpose of conveying the body of Mausolus into the tomb, and that it was covered over with soil immediately afterwards, there having been no further occasion for it.

I have been led to adopt this opinion from the following observations:—

1. The steps of the stair are cut out of the native rock, which, being friable and easily wrought, would necessarily have been much worn, had the stair been subjected to weather and thoroughfare for any length of time. The edges of the steps, however, were sharp, exhibiting no sign of wear or weather, as may be seen by the woodcut, (*ante*, p. 92).

2. On the north side the stair is flanked by a

[i] In the pyramid of the tomb near Constantine, called the Madrazen, was a staircase leading into the interior, the entrance to which was closed by a slab which is thus described: "Elle était glissée comme un tiroir vertical, dans une rainure en pierre de taille, et l'on devait la soulever au moyen d'une machine."—Annuaire de la Société Archéol. de la Province de Constantine, 1856-7. Paris, 1858, p. 62.

[j] On the distinction between θύειν and ἐναγίζειν, see Liddell and Scott, Lexicon, *s. v.* ἐναγίζω. Bulls were sacrificed to heroes, such as Mausolus must have been accounted after his death,—see Boeckh, C. I. No. 1051. Hence, probably, the bones which were discovered with the *alabastra*.

wall of isodomous masonry, built of blocks of the native rock. (See the cut already referred to.)

On the south side the boundary of the stair is a cutting in the rock, which, as will be seen by the Plan (Plate III.), turns below the stair at a right angle to the south, and, after making two more returns, falls in with the west side of the Quadrangle.

If this stair had been designed to form a visible feature in so sumptuous an edifice as the Mausoleum, it would not have been finished in so rough a manner, having only a wall of coarse material on one flank, and an irregular and unsightly cutting on the other. It would more probably have been faced with marble or the green stone of the basement. In that case the holes for the insertion of metal clamps would still be visible on the steps and flanks. No such marks, however, were discernible, though the surface of the rock and wall was carefully examined.

3. The earth with which this stair was covered was a white soil, full of crumbling fragments of the native rock. This white soil is, as I have already stated, the substratum throughout the Mausoleum platform, below the black superficial *humus*. No fragments of the architecture or sculpture of the building itself were ever found in the lower soil; moreover, it exhibited no trace of vegetable matter, either in a decomposed or growing state. I am, therefore, of opinion that this ground had never been disturbed since the platform was originally formed round the Mausoleum.

4. By reference to Plate VIII., it will be seen

that the side of the large stone facing the stair was left rough, while its inner or eastern face was wrought to a smooth surface.

If it had been intended that this stone should be seen from the outside, its western or external face would have been tooled in the same manner as its opposite or inner face.

About two feet to the east of the lowest step was a wall running from flank to flank, and in a direction nearly parallel to the width of the stair. It was built of massive blocks of native rock, exhibiting a great contrast to the neat work of the isodomous flanking wall, the blocks being squared but not bonded.[k]

This wall was rather more than a yard broad. Its width, and the style of the masonry, lead me to think that it must have been built for the purpose of consolidating the soil of the platform when this cutting was filled in.

If we suppose that the stair was cut to admit the sepulchral procession into the tomb, and immediately afterwards covered with earth, we may thus account for the preservation of the alabaster vases which were discovered at the foot of the rough wall.

Two of these were unbroken, and their surface generally was remarkably fresh. If, according to Greek custom, they had been placed at the door of the sepulchre on some occasion when the tomb was visited by mourners, and if they had remained in their original position for any length of time,

[k] This rubble wall, having been considered by Lieut. Smith as of comparatively recent origin, is not laid down in Plate III.

exposed to weather and accident, as would have been the case had the stair been left open, they would hardly have been preserved in so perfect a condition to the present day.

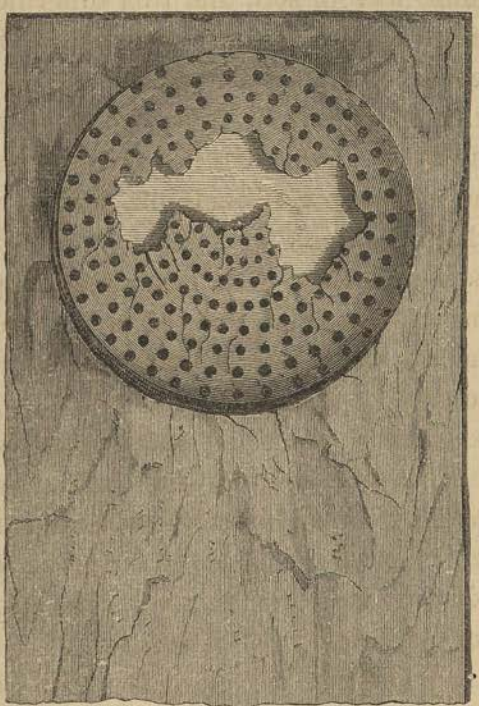
Supposing the stair to have been filled in flush with the level of the rock behind it, the entrance to the tomb would have been concealed under a depth of nine feet of soil, and this superincumbent mass of earth would, of course, have added greatly to the security of the sepulchre.

It may be observed, in reference to the western side of the Quadrangle, that the large stone which closed the entrance to the tomb, ranges with the pier in which the flank wall of the stair terminates, as shown in the Plan. If, then, we suppose the large stone to have been inserted in the masonry of the basement, the western line of the foundation would include the stair pier.

On examining the Plan and Sections of the Mausoleum, it will be seen that the native rock of the platform is pierced by subterraneous galleries at two different levels. These passages are consequently distinguished in this work as the Upper and Lower Galleries.

It will be perceived, on reference to the Plan, that the Lower Gallery runs all round the Quadrangle of the Mausoleum, having no outlet except on the eastern side, near the south-eastern angle. There can hardly be a doubt that this gallery served for the drainage of the building. On the eastern side, a drain issuing from under the paved area of the Quadrangle at the point marked ε in the Plan, flows

into the eastern gallery, and on the western side, another drain passed out of the building, at β, as has been already stated. This drain, found in position, flowed under the great stone, emptying itself into the gallery through a bronze grating inserted in the covering slab of pavement. (See the cut.)



Bronze grating. Length 1 *foot* 5½ *in.* ; *width* 10 *in.*

Ten shafts occur in this series of galleries—one at each of the four corners of the Quadrangle; and on the north, east, and south sides, respectively, two intermediate between the angle shafts.

On referring to the Plan, it will be seen that this

lower gallery, though it surrounds the Quadrangle, does not run parallel to its lines, making many deflections, especially in its southern branch, which makes a bend inward within the line of the Quadrangle. If we suppose that this gallery was cut by the builders of the Mausoleum, and formed part of its plan, it is difficult to account for such deflections where parallelism might have been expected.

It is possible that parts of this gallery were cut at a previous period for the drainage of the deeper excavations in the quarry, and that the architects of the Mausoleum adapted these earlier passages to the plan of their building, connecting them together so as to form one duct. If this was not the case, we can only account for the deflections by supposing that they were made to avoid faults in the rock. The sides of the cutting, however, exhibited no sign of any such flaws.

The lower gallery is cut throughout in the solid rock, to a height ranging from 6′ to 8′, except in the part on the west side, where it passes the front of the stair.

Here it is a trench only 2′ 10″ in depth, and covered over with slabs of green stone.

If we suppose this branch of the gallery to have been a work anterior to the Mausoleum, its upper portion would have been cut away in the course of the excavation for the stair.

It will be seen by reference to the Plan, that the centre pier on the north overhangs the corner of a shaft below it; from which it may be inferred that the pier was built after the shaft.

The external drainage of the building was probably conducted into the shafts. No sign of such drains was observable on the rocky margin of the shafts; but the external drainage may have been conducted through soil laid, as I have suggested, to produce an artificial level, or all the channels may have converged in that branch of the eastern lower gallery, which, entering the eastern side of the Quadrangle, receives the contribution of a small internal drain already noticed at ε in the Plan.

The shaft, where this branch from the Quadrangle enters the eastern gallery, may be considered as the terminus, or point of junction of all the branches of the lower gallery.

From this shaft a main duct leads in a south-eastern direction to within 45′ of the eastern *peribolus* wall. Here we lost all trace of it; but it was probably continued as a built gallery, on account of the great depth of the soil over the rock, which is here 25′ below the surface. The masonry of the galleries may thus have been gradually undermined, and carried away by torrents from the hills.

In a field below the eastern side of the platform is a large reservoir cut out of the native rock, which probably received the water from the upper gallery.[1]

This latter runs at an average level of 7′ higher than the bed of the lower gallery, and may be regarded as consisting of three branches, B, C, D,

[1] See Plate II., where this reservoir is marked "Tank."

which meet in a shaft in the Vakuf field, on the west side of the Quadrangle.

One of these branches, C, as will be seen by the Plan, crosses the south-western corner of the Quadrangle, passing the foot of the southern staircase, and then communicating with two chambers placed side by side.

It is evident that this branch could have had no connection with the original plan of the Mausoleum; for, at the point where it opens into the west side of the Quadrangle, its mouth was nearly closed by courses of foundation slabs built up against it, nor was there any trace of its continuation within the area of the basement.

I conceive, therefore, that it was of an earlier date, and that, in preparing the bed of the foundations in this place, the portion of gallery lying within the Quadrangle was cut away.

After this break we find the gallery C re-appear on the southern margin of the Quadrangle; but it is here irregularly built with rubble walls, which run on, as I have already noticed, across the foot of the southern stair.

This part of the gallery C does not exceed 3′ 9″ in height, and no portion of it can be considered good masonry.

It will be seen by the View and Plan of the southern staircase, given in Plate XIII., that at the point where the upper gallery passes through the rock flanking the stair on the east, the angles formed by this intersection are faced with stucco on each side of the return. The opposite flank of the

stair has in like manner a stucco facing where it meets the gallery.

From the point where the gallery intersects the eastern flank of the stair, it is continued across the space at its foot as a built gallery; thus completely cutting off access to the steps, and rendering them useless.

From this circumstance it is evident that the gallery originally terminated at the line of its intersection with the flank of the stair, which it so effectually blocks up. We may thus account for the stucco facing in the return on the eastern flank.

Re-entering the rock at this point, the gallery is continued to the south-east, with an opening into the smaller of the two chambers already noticed in the description of the south margin of the Quadrangle, *ante*, p. 128.

This chamber was 16′ square and 10½′ high. (See Plates III. and IV.) The floor was sunk in the centre about 1′, so as to leave all round the chamber a ledge about 3′ wide, and in the south-eastern angle a cubical pedestal. (See Plate XIV. and Section E F, Plate V.) If, as seems most probable, this chamber was sepulchral, a vase may have been placed on the pedestal, and bodies may have been laid on the ledge. When first discovered, it was nearly full of earth, in removing which I found some very rude and grotesque terra-cotta figures.

The soil with which the chamber was filled was the friable white soil which everywhere formed the lower stratum of the artificial platform. A doorway, of which a section is given, Plate XIII.,

communicates from the chamber to the branch C. On the side opposite to this entrance is a short gallery, F, which, passing over the southern lower gallery in a north-east direction, crosses the south line of the Quadrangle at an oblique angle, and falls into a trench running east and west, to be noticed hereafter.

I have already remarked, *ante*, pp. 127-8, that, if this chamber had been part of the plan of the Mausoleum, its lines would naturally have run parallel to the south side of the Quadrangle; they are, on the contrary, parallel to those of the stair.

From the fact that the branch C of the upper gallery communicates with the chamber, it may be inferred that, if this gallery were used as an aqueduct, the water must have been conducted along it in pipes.

The large oblong cavity, lying to the east of this chamber, has been divided into two compartments at the point where nearly opposite returns are cut in its eastern and western sides. (See the Plan of this part, Plate XIII. and Plate III.)

The smaller of these two compartments is evidently a monolithic chamber, like the one contiguous to it on the west, as, on three sides, a return in the rock may be traced all round at the same height from the ground, showing where the line of the roof has been broken away. (See the Views, Plate XIV., and the Section, Plate XIII., of this chamber.)

On the west side of this second chamber are two square apertures cut through the rock into the

contiguous monolithic chamber on the west. They are large enough to admit a man's body.

These apertures range immediately below the roof of the western chamber, but above the broken line of roof in the second chamber. It would seem, therefore, that they had been cut after this latter roof had been broken away.

On clearing out the second chamber, it was found to be partially filled with a rough wall of squared blocks of native rock similar in appearance to the walls at the foot of the two stairs already described.

The larger compartment, adjacent on the south to the second chamber, exhibited no trace of a roof, and may have been hypæthral.

The branch of the upper gallery, C, leading into this larger compartment from the west, is continued across it in an oblique direction by rubble walls carelessly built, and re-enters the rock on the opposite side.

It may be presumed that the rubble walls crossing this chamber are more recent than the chamber itself; they may be additions made at the same period as the rubble walls by which the gallery is prolonged across the foot of the south stair, which are similar in masonry. The terrace wall already described also crosses this chamber, meeting at its east end the rubble wall of the gallery. Its courses are toothed into the slabs covering the gallery here, in such a manner as to show that the terrace wall must have been built after these slabs were placed in position.

From this point onward the branch C runs in a

south-eastern direction, till it disappears at the same point as the lower gallery, a little to the west of the *peribolus* wall.

The branch B of the upper gallery runs in a north-west direction obliquely to the north *peribolus* wall, and probably intersects its north-west angle. Beyond this point it is continued across the road, and for the length of about 160′ beyond it to the north, in the direction of the Theatre.

In the part south of the road, the roof is composed of marble slabs laid horizontally.[m] These slabs have holes for cramps, showing that they have been taken from some other building. The height of the gallery here was 6′ 6″ by 2′ 6″. The part to the north of the road was larger than any of the galleries explored on the site of the Mausoleum. Its height, in places, exceeded 8′, with a width of about 3′. Along the bottom was a narrow channel, down which a great quantity of water descended during the rainy season, disappearing through the floor of the gallery, where the rock must have been porous, as there was no apparent outlet. In the length of 160′ beyond the road, shafts occur twice at intervals of about 50′; in both cases, in pairs.

It is possible that this gallery may be connected with a large and deep shaft in the upper part of the ancient Theatre towards which it points.

In this branch of the upper gallery, within the Vakuf field, we discovered a sardonyx, cut in the form of a disk, sightly convex on one side, and pierced

[m] See the Section of this part of branch B, Plate XII., where it is described as "Upper S.W. Gallery, 10′ S. of Shaft 1."

diametrically with a small hole, having, probably, been worn as a brooch. The convex surface is highly polished; the diameter of the disk is nearly two inches. The stone is remarkable for its regularity and beauty; round the edge is a white circle, perfect as if drawn by a compass.[n]

In this branch were also discovered some fragments of lions' tails, and a piece of semi-transparent stone, resembling jade. It is highly polished, and, from its form, may be a fragment from the handle of some instrument. It is rather more than 1″ in length, and $\frac{1}{2}$″ thick.

Branch D of the upper gallery, after proceeding in a south-eastern direction for about 100′ nearly parallel with branch C, makes a singular elbow on the north side of Hadji Nalban's house, after which it turns nearly due south for another 100′, and then, changing its direction, runs due east for 195′, disappearing finally on the line of the eastern *peribolus* wall.

It will be seen by Plate II. that its line converges towards that of branch C, and that these two lines, if prolonged, would meet a little to the south-west of the reservoir on the east of the *peribolus* wall, to which, as has been already mentioned, the lower gallery also tends.

At the distance of 80′ to the east of the angle already mentioned, branch D is closed by a double partition-wall, consisting of two party-walls pierced with four pipes at different heights.

[n] I am informed by Professor Maskelyne, that this stone is a remarkably fine specimen of a very rare kind of sardonyx.

The interval between the two walls was 12′. The occurrence of these pierced walls proves that this branch of the gallery must have served as an aqueduct.

It is to be presumed that the object of this double barrier was to hinder too sudden a rush of water from the hill.

The remains of a similar barrier were to be traced at the commencement of branch D in the Vakuf field.

It has been shown that branch C is continued by rubble walls across the foot of the southern stair, and that this continuation must have been made subsequently to the cutting of the stair itself, and reasons have been given why the rubble wall of the gallery at its point of intersection with the southern terrace wall must be anterior in date to the ashlar-work of the terrace wall itself, the latter being, as is presumed, of the date of the Mausoleum.

From these facts, and from the correspondence in direction of branch C with the lines of the stair, and of the two chambers of the south side, it would seem that this gallery at some time or other served as a passage between them, as well as for the conveyance of water, which must have been conducted in a narrow channel in the centre of its floor. The fact that this branch must have been so completely interrupted by the basement of the Mausoleum at the south-west corner of the quadrangle, would rather lead us to suppose that branch D was substituted for it as an aqueduct, either at the time of the building of the Mausoleum or on some earlier occasion.

The form and structure of these galleries present several varieties of section, which are given in Plate XIII.

The portion of branch D, between β and δ (Plate II.) was entirely built of massive blocks, the roof being formed of two stones leaning against each other and supported by the horizontal courses.[o]

In some parts of the galleries a channel was cut at the bottom, evidently for water, with a ledge on one side of it, just wide enough to walk on.

Along the sides, shallow niches were cut in the rock at intervals, in which, doubtless, lamps were placed during the excavation of the galleries. The shafts were always square openings cut in the rock. They were covered over at the top with slabs, which, in several cases, were in their original position. The soil which was excavated from the galleries, shafts, and chambers was almost always the white sub-soil of the platform.

In proportion to the great length of galleries excavated, very few antiquities of interest were found in this soil.

Numbers of handles of inscribed *diotæ*, from Rhodes and other places, were obtained from the lower gallery.

In branch D of the upper gallery, under Hadgi Nalban's house, was a breach in the side of the gallery, filled up with rubble masonry. In this rubble was found a bearded head, life size, much mutilated, which appears like a portrait. It may

[o] See Plate XIII., where the Section of this part of branch D is described as "Section, Southern part—Upper S. W. Gallery."

be doubted whether it formed part of the sculpture of the Mausoleum.

Near the south-eastern corner of the Quadrangle was a deep cutting in the rock, which appeared like the side of a sepulchral chamber.

In this cutting, at a depth of 23 feet below the surface, we found a sarcophagus, an iron dagger, and an archaic vase, which have been already described, *ante*, p. 124.

From this spot a gallery, F, cut through the rock, leads to the south-west, and turning at a right angle, passes over the south-eastern shaft of the lower gallery, entering the Quadrangle near its south-eastern angle. Thence it may be traced as an open trench cut in the rock, running parallel to the south side of the Quadrangle till it terminates a little to the east of the south stair, to which it may originally have led up.

From the evident connection of this gallery with the cutting containing the sarcophagus, I should infer that the trench within the Quadrangle was its continuation, and that the roof was cut away in levelling the rock for the foundations of the Mausoleum, so as to leave a trench instead of a covered passage.

The short gallery leading from this trench into the monolithic chamber on the south, has already been noticed, *ante*, p. 148. By this passage the cutting where the sarcophagus was found is connected with the upper gallery and with all the excavations on the southern side already described.

The archaic character of the vase found with the

soros has been already adduced as a proof of the early date of the cutting where these remains were discovered. Whether all the rock-cut galleries and chambers which communicate with this spot may be referred to the same early period, is a question which can hardly be decided without more evidence than has been brought to light by the excavations. There can, however, be hardly a doubt that the chambers are sepulchral.

The supposition that the site of the Mausoleum was an ancient cemetery is in no way inconsistent with the fact that it served as a quarry. Those who have explored the sites of Greek cities know that such a combination of quarry and cemetery was very common when the Greeks found a stratum of freestone suitable for building purposes.

In such localities they quarried the stone with great regularity, excavating *hypogæa*, or cutting out monolithic tombs above the surface, as the nature of the stratum might suggest. In the island of Calymnos is a quarry of this kind, where some years ago I opened several tombs, and which still retains its ancient name, Δᾶμος. In this quarry, which is on the side of a hill, the original features of the ground are only partially concealed by the soil.

On the site of the Mausoleum all irregularities of level were filled up by the artificial platform already suggested, which seems to correspond to the *platea ampla latitudine facta* of Vitruvius.

It will be seen by a comparison of the Plan and Sections of the Mausoleum with the Plan of the

ancient city, that the platform is cut like a step in the base of a conical hill to the north. This hill is of volcanic origin; the rock, of which its base is composed, and which has served as a quarry before the building of the Mausoleum, has been pronounced by competent mineralogical authority, to be a calcareous tufa, in which volcanic materials are cemented together.

To the north of the road beyond the north wall of the *peribolus*, the original features of the quarry are quite distinct. The rocky slopes of the hill, nearly to its summit, are cut into vertical faces, with monolithic chambers and graves at intervals, the position of which is marked in Plate I.

CHAPTER VI.

RESTORATION OF THE MAUSOLEUM.

BY MR. R. P. PULLAN.

Scanty evidence for a restoration of the Mausoleum afforded by the Architectural Marbles found *in situ*. Data assumed in the following inquiry. Lieut. Smith's Restoration. Pliny's description of the Mausoleum. Main points in this description. Method of inquiry here adopted. Size of the Apex of the Pyramid; how obtained. Steps of the Pyramid; their mode of structure and dimensions. Size of the base of the Pyramid; how obtained; its height, inclusive of chariot group. The Order. Position of the columns relatively to the base of the Pyramid. Identification of different members of the order—architrave, transverse beam, frieze, cornice. Dimensions of the cella and peristyle. Structure of lacunaria. Peculiar manner in which they were supported. Friezes on wall of cella. Position of Lions. Height of the order; how calculated. The columns. Entire height of the edifice. Dimensions of the *Podium*; how ascertained. Interior of the tomb. Sepulchral chamber. Domical structure of the roof of the cella. Employment of colour in the decoration of the architecture.

It will have been remarked by all who have read carefully the preceding narrative of the discoveries on the site of the Mausoleum, that the marbles affording evidence as to the form and construction of the building were very few in number. About twenty varieties of architectural stones were brought to light, in most cases so much damaged by exposure to weather, or defaced by having been used in the adjoining walls and houses,

as not to afford that degree of exactitude necessary for a perfect restoration of the edifice.

However, although the architectural data afforded by these discoveries were not as satisfactory as could have been desired, the marbles, such as they are, have been carefully measured and examined, with reference to the positions they occupied in the building, and the restoration given in the Plates of this work, is the result.

In the preceding pages Mr. Newton has been led to form certain conclusions in regard to the position of the sculptures and other marbles found in the course of excavation; as for instance, that the largest colossal figure was that of Mausolus, and that it stood in the *quadriga;* that the wheel and the great horse belonged to the *quadriga;* and that the slabs found on the north side of the *peribolus* were the steps of the pyramid.

These conclusions have not been reached without close observation and conscientious study upon the spot, and at the time of the discovery of the sculptures. They are, therefore, in the following pages assumed as ascertained facts, and, hence, the evidences for them are not recapitulated.

Drawings of the marbles in the state in which they were discovered, are given to a large scale; so that the process of the restoration can be followed step by step, by reference to the plates.

Decimal scales have been adopted, as affording the greatest exactness; but, where dimensions are quoted in the description of the building, feet and

inches are usually given, for the purpose of conveying a clearer idea to the reader.

I cannot claim for this restoration the merit of originality, since the general character of the edifice, and especially the form of the pyramid (which is the key to the whole structure), were previously determined by Lieutenant Smith;[a] but, after having revised the evidence, and fixed the position of each architectural member, I submit that this restoration appears to afford a satisfactory solution of the problem which has for years engaged the attention of architects and archæologists, inasmuch as it can be reconciled in all essential points with Pliny's description of the Mausoleum.

Had not this description been extant, anything like a correct restoration would have been an impossibility, as neither the character of the design, nor the magnitude of the work, could have been inferred from the existing remains.

The simplest mode of placing before the reader the evidence on which the present theory is based, will be to put together the whole structure, stone by stone, describing the size and characteristic marks of each, and giving reasons for their respective positions, with reference, as occasion may require, to Pliny's description, of which the following is a translation.[b]

[a] See Lieut. Smith's official report on this subject, in "Papers relating to the Excavations," pp. 17—21.

[b] Nat. Hist. xxxvi. 5, § 4, ed. Sillig. Hamburg, 1851. Scopas habuit æmulos eadem ætate Bryaxim et Timotheum et Leocharen, de quibus simul dicendum est, quoniam pariter cælavere Mausoleum;

"In the same period, Scopas had as rivals, Bryaxis, Timotheus, and Leochares, whom I would mention together, as they were associated in the work of decorating the Mausoleum with sculpture.

"Artemisia made this sepulchre for her husband, Mausolus, Prince of Caria, who died in the second year of the hundred and seventh Olympiad. It was chiefly due to the artists whom I have already named that this work was reckoned among the Seven Wonders. On the south and north it extends 63 feet, being shorter in the fronts; its entire circumference is 411 feet; it is raised in height 25 cubits (equal to 37½ feet); round it are thirty-six columns.

"The part surrounding the tomb was called the *Pteron*. The sculptures on the east side were by

sepulchrum hoc est ab uxore Artemisia factum Mausolo Cariæ regulo, qui obiit Olympiadis cvii anno secundo: opus id ut esset inter septem miracula, hi maxume fecere artifices. Patet ab austro et septemtrione sexagenos ternos pedes, brevius a frontibus, toto circumitu pedes quadringentos *undecim*; attollitur in altitudinem viginti quinque cubitis; cingitur columnis triginta sex; pteron vocavere circumitum. Ab oriente cælavit Scopas, a septentrione Bryaxis, a meridie Timotheus, ab occasu Leochares, priusque quam peragerent regina obiit; non tamen recesserunt nisi absoluto jam, id gloriæ ipsorum artisque monimentum judicantes; hodieque certant manus. Accessit et quintus artifex; namque supra pteron pyramis *altitudinem* inferiorem æquat, viginti quattuor gradibus in metæ cacumen se contrahens. In summo est quadriga marmorea, quam fecit Pythis; hæc adjecta centum quadraginta pedum altitudine totum opus includit.

[In the above extract, the text of Sillig has been followed, except in the words printed in italics, where changes are introduced, the reasons for which will be stated in the following chapter.—C. T. N.]

Scopas, on the north by Bryaxis, on the south by Timotheus, on the west by Leochares.

"Before these artists had terminated their labours, Queen Artemisia died; but they did not cease from their work till it was completely finished, regarding it as a monument of their own fame and of art. To this day it is a matter of dispute which of these four masterpieces is the finest. With these sculptors a fifth artist was associated. For, above the *Pteron*, a pyramid equalled the lower height, contracting by twenty-four steps to a point like that of a *meta*. On the summit is a marble chariot, with four horses, the work of Pythios. The addition of this made the height of the entire work 140 feet."

The points to be remarked in this description are the following; viz., that there was a *Pteron* or peristyle edifice, surmounted by a pyramid, with a *quadriga;* that the plan of the *Pteron* was oblong, its greatest length being from east to west, and its shorter sides forming fronts; that the *Pteron* and pyramid, with its *quadriga*, made up a height of 75′, and that the whole height of the building was 140′. Pliny thus leaves 65′ unaccounted for. This remainder may be assumed as the height of the basement, or *podium*, the existence of which is implied, though not directly stated, in Pliny's description. Bearing in mind these particulars, we will proceed to construct the edifice with the materials left to us. We cannot begin from the foundation upwards, as we have no exact information with regard to the lower part. It will be better, therefore, to commence by ascertaining the size of the platform upon

which the *quadriga* stood, and next to fix the dimensions of the pyramid. After this, may be obtained the positions of the columns of the *Pteron;* then the size of the main part of the building, or *cella;* and, finally, the character of the basement or *podium.*

The remains of sculpture are of very great value in enabling us to ascertain the size of the platform which supported the four-horse chariot. The two portions of colossal horses which were found on the north side give us a length of about 12′ for the group of horses. The diameter of the wheel (see *ante*, p. 130), as put together from several fragments, being 7′ 7″, the *quadriga* would have occupied about that length, allowing a proper distance between the horses and the car.[c] Thus, with a margin of 2′ 11½″ at each end, we have a platform 25′ 6″ long. Now as to the width: each horse measures 3′ 6″ across the chest; they would therefore require 16′ 11″ to stand in, allowing 1′ 5″ for the central space where the chariot pole divides the two pairs, and 9″ for the other two spaces. Thus, with a margin of 1′ 9″, we should have a width of 20′ 5″, and a platform measuring 25′ 6″ by 20′ 5″.

If we assume that the figure of Mausolus stood in the *quadriga*, on a base a little above the axle of the wheel, we gain a height of 13′ 3½″ for the chariot group.

We now come to the pyramid, which, as I have

[c In the restoration, Plate XVIII. the wheel is made somewhat smaller than its true scale, as, if drawn in strict elevation, it would convey a false impression of the effect of the original group.—C. T. N.]

stated, is the key to the whole building. Few will feel inclined to doubt that the slabs found in a heap near the north *peribolus* wall (see *ante*, p. 105) formed the steps of the pyramid.

These slabs were of a uniform thickness of 1′ $\frac{1}{4}$″, they averaged 4′ in length, their widths were 3′ and 2′. From the existence of a line upon one face of each, running parallel to the longer side, and marking off a space of 1′ 9″ in some cases, and 1′ 5″ in others (see Plate XXV. fig. 2), it is evident that these slabs were steps, and that the line gave the width of the treads.

On the under side was a hollow (Plate XXV. fig. 3), running longitudinally, and averaging 6″ in width by 1$\frac{1}{2}$″ deep, which was crossed at right angles by another hollow running transversely from the face of the riser to the middle of the block.

This second groove had an average width of 3$\frac{1}{2}$″ at the junction, and 1$\frac{1}{4}$″ at the edge of the riser: both grooves were roughly chiselled out. Upon the upper surface of the step were three ridges, one of which (fig. 2, a, and fig. 1, a) running longitudinally at the back, averaged from 4″ to 5″ in width. The other ridges (fig. 2, d d) were at the sides, running from back to front of the steps, and diminishing from 3$\frac{1}{2}$″ at the junction with the back ridge to 1$\frac{1}{8}$″ on the edge of the riser. These ridges were found to fit into the grooves of other steps (fig. 3, b d) corresponding in width of tread; and this system of securing the joints was intended to hold the whole work together with the assistance of cramps, and to enable the pyramid to resist the

shock of earthquakes, by preventing any forward or lateral slipping. Fig. 1 shows the arrangement of the steps. The ridges at the side are curved in section, so as to form a good weather-joint at the junction of two adjoining steps. On the face of each stone were four cramp-holes, uniting the stone to those on each side. It has been already stated, *ante*, p. 105, that in many of the steps the copper cramps, slightly bent by their dislocation, were still fixed on their first discovery.

From forty to fifty of these steps were found. In all cases but two, the treads measured exactly 1′ 9″, or 1′ 5″. That these stones had been arranged so as to form a pyramid of oblong form, is proved from the fact that four or five corner-stones were found having on one side a tread of 1′ 9″, and, on the return, one of 1′ 5″.

I have mentioned that there were two steps differing from the others as to the width of tread; but with similar dimensions in other respects.

One of these (Plate XXV. figg. 4, 5, 6) had a tread of 9″, and ridges on the back and sides; but these lateral ridges were not continued as far as the line of the tread, but had been chiselled off square a little short of it. This stone fits exactly on the stones which have a tread of 1′ 5″, the ridge of one filling the groove of the other.

The other stone had a tread of $10\frac{1}{2}$″, and a groove underneath, but no ridges.

These two stones being of an exceptional character, though plainly forming part of the pyramid, it seemed to me that there was sufficient reason

for placing them as the uppermost course, immediately below the platform on which the *quadriga* stood, the $10\frac{1}{2}''$ stone at the ends, and the $9''$ stone at the sides. They would thus form a pedestal for the chariot group, their respective proportions corresponding with those of the pyramid.

The next point to be ascertained is the size of the base of the pyramid.

It has been assumed that the platform on the apex measured $25' 6''$ by $20' 5''$, with a $10\frac{1}{2}''$ step at the ends, and a $9''$ step at the sides.

So that we have 22 steps measuring $1' 9''$ on the tread $= 38' 6''$. If we add to this the $10\frac{1}{2}''$ for the step of the pedestal, and allow $7''$ for the inclination of the risers, we gain a total of $39' 11\frac{1}{2}''$ for the spread of the pyramid on one side. Again, we have 22 steps measuring $1' 5''$ on the tread: if we add to this $9''$ for the step of the pedestal, and $7''$ for the inclination, we have a total of $32' 6''$ for the spread of the pyramid on the other side.

The spread of the pyramid on one side being, as has been shown, $39' 11\frac{1}{2}''$, it is obvious that, if we double this dimension, and add to it the length of the platform, $25' 6''$, we obtain as the length of the base of the pyramid, $105' 5''$. In the same way, the spread of the pyramid on the other side, or $32' 6''$, when doubled and added to the width of the platform, give the breadth of the base of the pyramid as $85' 5''$.

Thus a parallelogram is formed, shorter on the fronts than the sides, corresponding in this particular with Pliny's description of the building

and also with the oblong form of the bed cut in the rock to receive the foundations. The fronts mentioned by Pliny, as looking east and west respectively, would be the end which the *quadriga* faced, and the one opposite it; because chariots and equestrian figures, when placed upon triumphal arches, or over the entrance to buildings, were always disposed so as to face a person approaching. The shorter sides of the pyramid therefore faced east and west.

Each step measures $11\frac{3}{4}''$ in height on the face of the riser; there is, however, a difference of about $\frac{1}{2}$ an inch between the back and the front of the step on account of weathering. The inclination of the riser away from the perpendicular is very perceptible, measuring in each step ·025; so that the sum of these slopes amounts to ·600 in the 24 steps. It is probable that the joints were originally quite close.

It has been already stated that at the back the steps measure $1' \frac{1}{4}''$, so that we have a height of $24' 6''$ for the entire pyramid. The height of the pyramid added to the *quadriga* group gives us a total height of $37' 9\frac{1}{2}''$: a dimension which we infer to be correct from its near agreement with Pliny's statement.

The size of the pyramid at its base having been determined, the next point to be learnt is the position of the axes of the columns of the peristyle: to ascertain this, the size and projection of the entablature must be fixed, and the relative position of

the order, with regard to the base of the pyramid, satisfactorily determined.

The heights and diameters of the various drums of columns were carefully registered by Lieut. Smith as each drum was dug up, and it was by comparison of these various dimensions that the height of the column was gained. The other members of the order I measured on the site.

I was thus enabled to construct the order with tolerable accuracy while at Budrum, the whole being finally revised and compared with the remains now in the British Museum.

I may here mention, that all that portion of the building which was above the *podium* was built of white marble, and that, probably for the sake of economizing labour and material, the enriched mouldings are all worked on detached pieces which were let into ledges cut on the upper edges of the fascias which they were intended to ornament.

The lower stone of the architrave was easily identified by two fascias measuring respectively $9\frac{3}{4}''$ and $8\frac{3}{4}''$, with a sunken panel on the soffit. This panel was $5\frac{1}{4}''$ wide, and $\frac{3}{4}''$ deep, and finished square without ornament. Of this stone were discovered several fragments, one of which was fractured at one end; the other end, which had rested upon the capital, showed a square joint (Plate XXVI. fig. 1). On the back or inner face, which was hammer-dressed, were two ledges, or steps; the upper ledge $5\frac{3}{4}''$ deep and $5\frac{1}{2}''$ wide, the lower, $5''$ deep and $4'$ wide (figg. 2, 3).

The lower of these ledges was intended for the reception of a moulding, upon which had been placed a stone with two fascias, filling up the top ledge, and ranging with the transverse beams. This stone will be hereafter described. In this as in all other stones throughout the building, the surfaces which have been exposed to view are neatly dressed with a fine-toothed chisel; the other surfaces are either roughly tooled or hammer-dressed.

The upper stone of the architrave was also easily identified, from the fact of its having a finished fascia of a depth proportionate to the fascias of the lower stone, and, because it presented on the under surface a weathermark which gave evidence of a set-off, having a proper degree of projection (Plate XXVI. figg. 4, 5, 6). This reveal was slightly hollowed, as if to form a drip. Three fragments of this stone were found, none of which presented any dimension by which the length could be ascertained: two of them terminated in a square joint. It was evident that this joint coincided with that of the lower architrave, instead of breaking joint with it; for at the square end of both is a notch or recess, cut at right angles to the fascias, measuring 1′ 1″ (Plate XXVI. figg. 3, 6); so that when the upper and lower stones are placed one upon the other, in such a manner that the side of the cutting shall coincide, and when similar upper and lower stones are placed adjoining them, a recess is left at the point of junction, measuring 2′ 2″ in width. It will be presently shown that a transverse beam fits exactly into this recess.

Above the fascia of the upper architrave stone is a ledge, 4″ on the bed and 5″ in height (fig. 5), into which a bold egg and tongue moulding was found to fit.

The three fascias of the architrave slope outwards as in the temple of Athene Polias at Priene, inclining ·020 in the foot.

Of the transverse beam between the architrave and *cella* only one piece was discovered; it measured 4′ 6″ in length (Plate XXVII. figg. 1, 2, 3, 4). One half of the length has two fascias on either side, measuring, respectively, in depth 7¾″ and 6½″, and, on the soffit, a sunk panel; above the fascia were ledges for mouldings; an egg and tongue moulding was found which fitted these ledges. The other half of the stone was roughly tooled all round, showing that it had been inserted into the wall of the cella; for the length of this rough work was too great for the end that was placed over the columns.

The fascias incline outwards like those of the main architrave.

This stone is 2′ 1″ in width by 1′ 6″ in height; and, as it fits exactly the square recess left between the two upper stones of the architrave, its position is indisputably proved. On the upper surface, which is roughly tooled, are cramp-holes, at distances of about one foot apart (fig. 4), showing where the stones forming the *lacunaria* had been attached to the transverse beam on which they rested. These stones will be noticed after the upper part of the entablature has been described.

It has been already stated (*ante*, *p.* 79) that a

number of slabs of frieze, representing an Amazonomachia, were removed from the castle by direction of Lord Stratford de Redcliffe, and that four more, similar in subject and scale, were discovered on the site of the Mausoleum by Mr. Newton. There has never been any doubt that these marbles are from the frieze of the order. The weather-marks on the figures on this frieze, and the boldness of its projection, show that it has been placed on the exterior of a building. The height 2′ 11½″, agrees with the general proportions of the order. Moreover, at the bottom of the slab is a moulding, consisting of a square fillet and reversed cyma of slight curve, which combines with the ovolo above the architrave, as in the Ionic temple of Athene Polias at Priene.[d]

This unusual structure of the frieze was designed to give support to the highly-relieved and undercut figures, and also to protect the joint or bed of the architrave itself. The width of the bed of the frieze is 1′ 2½″; the back of each slab has six divisions marked upon it longitudinally, alternately smooth and rough tooled.

On the top of these slabs is an astragal (Plate XXIX. fig. 4). An egg and tongue moulding, without the usual bead (Plate XXIX. fig. 3), was found, suitable in proportions to this astragal; and which, therefore, had evidently surmounted the frieze. Above must have come the dentils, which are common to all Asiatic examples of the Ionic

[d] "Ionian Antiquities," i. c. 2, pl. 6.

order. Two or three neatly-tooled pieces of stone were found, measuring 10″ by 7″ by 5″, with rectangular cuttings in them parallel to the sides. These stones had been placed so that 10″ was their perpendicular dimension; and from their proportions and form it is to be presumed that they were the dentils.

Of the cornice were found small fragments of the bed mould, a simple echinus; a few portions of the corona, $8\frac{1}{2}$″ deep, with a plain echinus at the top and a moderate drip; and several stones of the cymatium. These stones were hollowed out on the upper surface, to the depth of $4\frac{1}{2}$″ to form a gutter, and at their joints had weatherings, similar to those on the treads of the steps (Plate XXVII. figg. 5, 6). Their fronts were ornamented with a bold honeysuckle pattern; at intervals were antefixal lions' heads, which served as spouts to the gutters at the back. (Plates XXIV. and XXX.)

Each stone is 1′ 9″ long, and has a lion's head upon it; thus the heads were arranged so as to measure 3′ 6″ from centre to centre. From the evidence of a corner-stone, we learn that these heads were not placed over the centres of the columns; they therefore give no information as to the width of the intercolumniation.

The bottom of the gutter inclines slightly towards the centre, in order to carry off the water through the lions' heads.

At the distance of 1′ 10″ from the face of the fillet above the cymatium, a line is marked on the surface of the gutter-stones (Plate XXVII. fig. 5). This line marks the commencement of the pyramid; for,

as it may be inferred from the language of Pliny that the pyramid and *quadriga* equalled the order in height, there could have been nothing intervening between the upper member of the order and the first step of the pyramid.

Having arranged the various stones of the entablature according to their proper projections, which are in most cases indicated by the cramp-marks, and having applied the profile of it, so that it shall join the lower steps of the pyramid on the line mentioned in the last paragraph, we find that the centre of the architrave stone, which is the same as that of the axis of the columns, falls 2′ 8½″ within the line of the base of the pyramid.

In order to fix the exact position of the columns, we will suppose a line to be carried all round the building in the centre of the architrave, which has just been found; if then, beginning at one of the corners, we divide the circuit into thirty-six parts, we shall find that there will be nine columns on the front, and eleven on the flanks, and that they will be exactly ten feet from centre to centre.

In the passage from Pliny which has been already quoted, the dimension 63′ is given, as the length, from east to west, of some portion of the tomb, which, if we regard the context alone, we might suppose to be the *Pteron;* but, if we take into consideration the size of the base of the pyramid, as ascertained by the discovery of the steps (see *ante*, p. 165), the dimension 63′ cannot apply to the length of the peristyle, but must represent the length of the *cella*, regarded in this passage as the main feature of the building.

Bearing this in mind in connection with the argument *ante*, p. 166, we are enabled to construct a building of which the *cella* is 63′ long, being shorter on the fronts, and surrounded by a *peristyle* measuring 100′ from centre to centre of the columns from east to west, and 80′ from north to south.

The next point to be determined is how far certain stones, which have not yet been mentioned, prove the correctness of the restoration in regard to the size and position of the pyramid and peristyle, and the relation of the *pteron* and *cella* to one another.

An oblong slab was found which had formed one side of one of the lacunaria; it measured 6′ $2\frac{1}{4}$″ long by 2′ $8\frac{3}{4}$″ wide, and 10″ in thickness. (Plate XXVII. figg. 7, 8, 9.) Two of the angles on the same side had been cut off to form mitres. The upper surface of the stone was rough, and had cramp-marks at regular intervals, and, on the same side as the mitres, a ledge, which had been filled by a small enriched moulding. On the lower surface or soffit (fig. 8) was a sunk panel $4\frac{1}{2}$″ wide, ornamented on the inner side (that nearest the coffer) by an enriched cyma reversa, with a bead on the soffit. This cyma terminates in a square return (fig. 8), showing the exact length of one side of the panel, which was 4′ $\frac{3}{8}$″.

It will be seen by reference to the plate, that on the flanks the architrave stone is much stronger than the transverse beam. Hence it seems probable that the lacunaria were of an oblong form, and that their longer side would have been that placed between the transverse beams, and not that between the

architrave and the wall of the *cella*. Now, the lacunar stone above described is only 6′ $2\frac{3}{4}$″ in length, whereas the space between the transverse beams is 7′ 10″; this stone, therefore, must have formed the shorter side of the panel. Its length being 6′ $2\frac{3}{4}$″, the space between the centre of the columns and architrave of the *cella* on the flanks of the building may be taken at about 8′ 6″; and the width of the *peristyle* being, as we have seen, 80′ from centre to centre of the columns, the width of the *cella* will be 80′—18′=62′, if we allow 6″ for the projection of the pilaster on each side.

The dimension thus obtained for the width of the *cella* tallies with the statement of Pliny that the building was shorter on the fronts than on the sides. Had the difference which he notes by the words "brevius a frontibus" been more considerable, it seems probable that he would have stated this difference as a positive dimension.

On reference to the plan (Plate XVI.), it will be seen that the *cella* is almost square, and that the width of the pteromata, or ambulatories on the north and south, is very much less than on the east and west sides. This inequality marks the distinction between the fronts and flanks. The distance between the architrave and wall of the *cella* on the fronts is 17′—too great for a transverse beam of the same dimensions as those at the sides to traverse under the weight of lacunaria.

We are therefore led to the conclusion that, on the eastern and western fronts, the architrave was connected with the *cella* by main beams of large

dimensions, running across on a level with the architrave, and supporting transverse beams and lacunaria. The width of these beams may be obtained by taking the length of the lacunar stone before mentioned, viz. 6′ 2¾″, and setting it off so that its centre shall correspond with the centre of each intercolumniation. We shall then find that between each pair of lacunar stones so disposed is an interval almost as wide as the architrave, viz. 3′, which would admit a main beam sufficiently thick to carry the transverse beams and lacunaria.

One piece of the upper course of the lacunaria (Plate XXVI. figg. 10, 11, 12) was found, measuring 2′ 8″ by 1′ 6″ by 7¾″ thick, which, adjusted to the lower course, would give a panel such as those shown in the restoration. On the upper edge of this stone was a ledge for a moulding, 2½″ deep by 2″ in the bed. At 1′ 6″ from the end was a mitre-joint measuring 4½″ on the splay. There were no traces of the panel which covered the lacunar.

The chief difficulty encountered by Lieutenant Smith in his restoration was that of showing how the pyramid could be supported in the interval between the columns and the cella. In the accompanying restoration the same difficulty does not occur. The detail drawing in Plate XXI. figg. 1, 2, shows how, by the use of through stones, the space can be corbelled out, the beams acting as ties, and, in the lowest course of the corbelling, the stones being of sufficient length to extend from beam to beam.

The firmness of this mode of construction has been demonstrated by means of a model; the prin-

ciple is that of the Egyptian[e] arch, the pressure being downwards throughout. The corners would be bonded by angle-stones returning each way.

In a construction of this kind, the utility of the system of ridges and grooves in the pyramid stones would be very great, as it would prevent any dislocation of the masonry, except by a force such as an earthquake acting from below.

I have shown pilasters at the angles of the cella as they most probably existed, though no traces of them were found.

[e By the term Egyptian arch is here meant the arch designated by Mr. Fergusson (Hist. of Architecture, i. p. 72) as the Horizontal arch, and which may be described, in technical language, as an arch formed by approaching stones, such as was used in some of the earliest Greek and Etruscan buildings. It is to be regretted that writers on architecture have not agreed on some one name by which to designate this primitive mode of construction. The phrase "arch formed by approaching stones," is rather a definition than a designation; on the other hand, the term Horizontal arch, introduced by Mr. Fergusson, though more concise, labours under the objection that it involves a verbal contradiction; for though the structure in question is certainly built in horizontal courses, it can hardly, without violence to language, be described as a Horizontal arch.

In the absence of a more appropriate and generally received term, I have thought that this arch might fairly be distinguished by the name of the people who, so far as we know, were the first to make use of this primitive mode of structure. The great antiquity of this kind of arch in Egypt may be seen by referring to the work of Lepsius, Denkmaeler aus Aegypten, Bd. ii. Abtheil. i. Bl. 87, where two varieties of it are given from a temple dedicated by Thothmes III.—Cf. ibid. Bl. 94 and Bl. 134. The term Pelasgic has also been applied to this kind of arch, but appears to me less appropriate, because it cannot be shown that the Pelasgi invented this structure, though they may, possibly, have been the first to introduce it in Greece.—C. T. N.]

One stone of the *cella* wall was discovered, which shows that it inclined away from the perpendicular ·010 in one foot.

Among the thirteen slabs of frieze removed from the Castle in 1846 was one differing from the rest in the following particulars. It had no astragal above the figures, and at the bottom of the block, in place of the square fillet and reversed cyma, a fillet and hollow. Its height was 2′ $10\frac{1}{2}$″, or one inch less than the frieze of the order.

In the course of the excavations we met with several fragments of this second frieze, on one of which the subject was not an Amazonomachia but a combat of Greeks and centaurs. Several other portions were found, apparently[f] from the same frieze, in which a race between female charioteers is represented. As this is too small in scale to have formed part of the decoration of the *podium*, and, again, as the fragments exhibit no sign of having been exposed to the weather when on the building, I have ventured to place this frieze halfway up the walls of the cella, in a position where it would have been sheltered.

Below it I have inserted groups set in panels, of which several fragments were found, but of which the dimensions cannot be satisfactorily ascertained. Those panels are set in frames projecting $2\frac{1}{10}$″, but

[f] [While this is passing through the press, it has been ascertained that the fragments here referred to, do not belong to the same frieze as the slab from the Castle with the fillet and hollow moulding. This will be more fully shown in Chapter VIII.—C.T.N.]

are not protected from the weather by mouldings. It is to be presumed, therefore, that they were not placed on the exterior of the building.

An oblong stone, 6′ 8″ × 2′ 1¾″ × 1′ ¼″, was discovered, on which is a tread of 4½″, marked by a fine drip-line; cramp-holes at the sides show that it was connected with other similar stones placed in a row (Plate XXVI. figg. 8, 9). A step with a 6″ tread, and without either ridge or groove, was also found.[g] It is to be presumed that these marbles formed part of the steps on which the columns stood, in which position I have placed them. I have put the wider steps at the ends, the others at the sides. The pavement of the ambulatories was, probably, composed of similar but thinner slabs.

It has been stated in the foregoing narrative of the excavations, that fragments of at least twenty statues, several of which were of colossal dimensions, were found in various parts of the ruins, and also a number of portions of lions. It seems most probable that the statues were placed between the columns of the peristyle, according to the analogy of the Xanthian *heroon*, as restored by Sir C. Fellows. With reference to the lions, it is well known that they are constantly represented in ancient art as guarding sepulchres; I have, therefore, placed them standing in advance of the columns of the eastern and western fronts. The length of

[g] [The uppermost of the marble courses in the piece of castle wall engraved p. 81, seems to be one of these steps. The line marking the tread is too strongly marked in the cut, and the cramp-hole at the side not properly indicated.]

the lions may be calculated at 5′, and thus, by arranging them in front of the columns with a sufficient margin, we may assign for the length of this die 119 feet.

If we suppose that the lions were placed only at the two ends and not at the sides, there will not of course be the same necessity for extending the platform laterally below the steps of the columns. Allowing, therefore, a projection of 10″ at the sides, we gain 88′ 6″ for the width of the die of the podium. This dimension, combined with that of the length already obtained, gives 415′ for the circumference of the die of the podium, corresponding, within a little, with Pliny's dimensions for the total circuit of the building, if we adopt the generally received reading of his text.

The height of the wall of the cella is of course the same as that of the columns, inclusive of their capitals and bases, which, from Lieutenant Smith's measurements of the drums, I made out to be 29′; this, with the entablature added, amounts to 37′ 6″ to the top of the cornice, and 37′ 2½″ to the line of the base of the pyramid.

The entasis could not be ascertained with accuracy from the defaced drums which I had the opportunity of examining. The base of the column was of the type which distinguishes the Asiatic Ionic, the upper member consisting of a torus fluted horizontally, and the lower member of two scotias, with accompanying annulets. Among the fragments of the upper part was one interesting from the fact, that about a quarter of the circumference

is left unfluted. This unfinished base may have been one that for some reason was rejected by the builders.

In the course of the excavations, several bronze dowels were found in the form of two truncated cones joined at their bases (see cut), 6″ long by 1½″ at the ends. Exactly in the centre of each drum of the columns, and of the upper stone of the base, was a hole into which the ends of these dowels

fitted exactly. It is to be presumed, therefore, that they were used as centres, by means of which one drum could be made to revolve on another,[h] for the purpose of polishing them.

[h] In the columns of the Parthenon, cylindrical wooden pins set in square blocks of wood were used for the same purpose.—See Penrose, "Principles of Athenian Architecture," p. 23.

No entire capitals were found, and in none of those that were discovered was the volute perfect, so that its restoration was a matter of some difficulty. The character of the anthemion, or spiral curve, is rather like that of the temple of Minerva at Priene. The eye of the volute had been filled in with a separate piece of marble, upon which there seems to have been a flower sculptured. The balteus of the pulvinar is enriched with laurel-leaves.

The columns have twenty-four flutes. At the junctions of the apothesis and the apophyge respectively with the base and capital, a space of about 2″ is sunk from the surface of the joint immediately above and below the mouldings, in order to preserve them from injury; this is the case throughout the building, wherever delicate mouldings are placed beneath large superincumbent masses. The capitals are remarkable for the small size of the bead of the anthemion, and for the boldness of the ovolo. In two of the capitals found, there is a ledge cut on the edge of the fillet above the ovolo.

On the top of the angle capital is a sinking surrounded by a ridge, which seems to have been for the purpose of admitting a plate of lead, or some other soft metal, to form a bed for the architrave stone, and so to relieve the abaci from pressure.

On one capital this sinking is found only on one half of the surface.

As I before stated, the order to the line of the base of the pyramid is 37′ 2½″ high; the pyramid with the quadriga, measured from the bottom of the gutter to the top of the figure in the chariot,

gives a dimension of 37′ 9½″: the two dimensions added together amount to 75′, which, deducted from the whole height given by Pliny—viz., 140′—leaves 65′ for the height of the *podium*, from the ground to the top of the upper step of the stylobate. The *podium* was faced with grey marble; the mouldings shown on it are for the most part taken from fragments found on the spot or in the walls of the castle of St. Peter.

If we apply the dimensions given in the Plan for the base of the *podium* to the area of the quadrangular cutting in the rock, it will be found that, if one face of the front is placed so as to range with the face of the great stone at the bottom of the western staircase, there will be an equal margin of 1′ 6″ left at each end between the building and the side of the cutting, and a margin of 8′ between the building and the edge of the cutting at the flanks.

It is certain that at the sides a greater space was left than at the fronts, because at the north-west angle there is a pier, distant 4′ from the west side of the cutting,[i] upon which the main wall of the building could not have rested (see Plate I.).

This pier resembles those to the east of it, on the northern side of the Quadrangle, which were no doubt used, together with the rough drums of columns found near them, for the purpose of making firm and compact the filling in of the ground when the platform round the Mausoleum was formed.

In the arrangement of the steps at the foot of the basement, the analogy of other Greek monuments

[i] Described *ante*, p. 101.

has been followed: the discovery of the torso of a mounted warrior in a Persian dress[k] makes it probable that the four angles of the *podium* were decorated with equestrian groups, which I have accordingly placed on blocks.

We come now to the interior of the monument. The core was built entirely of a stone resembling green rag in appearance, laid in regular courses of 1′ in depth, and fastened together with iron cramps. Many of these courses were found *in situ* at the bottom of the quadrangular cutting (see *ante*, p. 95).

A great part of the Castle of Budrum was constructed of this material, which we know to have been taken from the Mausoleum for the purpose, and which may be easily identified, as the original cramp-holes of the blocks are in many cases still visible. The sea-rampart on the west side, and several of the walls of the main fortress, were built of it altogether: indeed, the quantity of this material employed is so great that the building from which it was taken could hardly have been of less magnitude than the *podium*, as it is drawn in the restoration.

Judging from analogous arrangements in other ancient sepulchres, the body of the monarch was probably deposited in a lower secret chamber, the entrance to which would have been carefully concealed. The great stone, the drain, and the staircase on the west side (see Plates VI. and VIII.), show the mode in which the chamber was approached, and the position of the entrance. After the body had been placed in its resting-place, the great stone would be

[k] See *ante*, p. 90.

lowered in its groove, and the staircase filled up, so as to preserve the tomb from desecration. This was probably the chamber into which the Knights broke, as related by Guichard (see *ante*, p. 76), for the steps or *perron* which that author mentions must have been those of the basement, and not of the pyramid, as it is impossible that the surrounding soil could have accumulated to the height of 60′ or 70′ round the tomb. Guichard states that the chamber was adorned with coloured friezes, pillars, capitals, and bases. This description may have been heightened by the excited imagination of the original narrator, for the chamber could have been of no great size, or there would have surely been found some traces of this architectural magnificence.

In the centre of the cella there was probably a circular chamber, covered by a domical construction, on the principle of the Egyptian arch, as that would afford the most efficient support to the pyramid. Below, in the centre of the *podium*, I have placed a similar chamber.

This mode of vaulting was practised, as is well known, by the Greeks, from the earliest times. It was also adopted in the singular buildings in Sardinia called Nur-hags, which are noticed in a treatise attributed to Aristotle.[1] They generally have one or two vaulted chambers one above the other.

The ambulatory or platform upon which the

[1] Pseud. Aristot. de Mirab. Auscult. ed. Bekker, Oxon. 1837, vi. p. 122, § 100. Ἐν τῇ Σαρδοῖ τῇ νήσῳ κατασκευάσματά φασιν εἶναι εἰς τὸν Ἑλληνικὸν τρόπον διακείμενα τὸν ἀρχαῖον, ἄλλα τε πολλὰ καὶ καλὰ καὶ θόλους περισσοῖς τοῖς ῥυθμοῖς κατεξεσμένους. See Della Marmora, Voyage en Sardaigne, Paris, 1839, Ptie ii. pp. 36—159, Planches vii.—xiv.

pteron of the Mausoleum stood, may have been approached by an inclined plane or ramp winding round through the massive masonry of the basement. This ramp may have been used during the construction of the building for the conveyance of materials, and for the passage of workmen. There are such passages in the Nur-hags.

All the architectural members of the Mausoleum were painted. The colours were pure red and blue, the materials employed being ultramarine and vermilion, or pigments equal to them in intensity. The system adopted seems to have been to tone down the whole of the marble with a coat of varnish and wax, to paint all grounds of sculpture and ornament blue, and to pick out the mouldings with red.

On the first disinterment of one of the lacunar stones,[m] there still remained in the soffit a thick flake of blue colour, which for a short time retained its original intensity; and, though on the larger marbles the pigments have now for the most part scaled off from exposure, blue and red colour are still visible on some of the smaller mouldings preserved in the British Museum.[n] The various parts of the order will be more particularly explained in the description of the plates. (See Volume I.)

[m] This was a fragment similar to the stone engraved, Plate XXVII. fig. 8.

[n] See Plate XXIX. where facsimiles of these colours are given.

CHAPTER VII.

SUMMARY OF THE ARGUMENTS IN FAVOUR OF MR. PULLAN'S RESTORATION.

Three principal points on which the restoration depends, assumed at the outset. Credit of Pliny's text, how far affected by various readings. Sillig's edition. Discrepancies between Pliny's sum total and subordinate numbers, how explained. Pliny's account probably taken from his *notes* of the treatise by Satyros and Pythios. Objections to Lieutenant Smith's restoration considered seriatim. Meaning of Pliny's comparison of the pyramid to a *meta*. Pyramid to be regarded as a pedestal for the chariot group. Height of basement borne out by analogy of other monuments. This part probably decorated with friezes. Pyramid supported by a dome, on the principle of the Egyptian arch. Analogous domical structures in antiquity. Arrangement of *pteroma* analogous to that of the Ionic monument at Xanthus. Authority for position of the lions. Internal chambers probably like those in the Koul Oba. Correspondence of the restoration with passages in ancient authors relating to the Mausoleum. Imitations of this type in other monuments.

A FULL and detailed account of the discoveries on the site of the Mausoleum having been given in the preceding pages; the facts disclosed by these discoveries having been duly weighed, and the conclusions, which, as it is thought, may be fairly deduced from this new evidence, having been submitted to the reader in the positive form of a restoration, it may be as well here to recapitulate

briefly the chief points on which the theory of this restoration has been framed; to bring forward such collateral arguments as may tend to confirm it, and at the same time to consider what objections to such a theory are most likely to be made, and by what arguments they may be best met.

The three points on which the restoration proposed by Mr. Pullan is ultimately based, and which I would venture to call the postulates in this argument, are the following:—

1. That the quadrangular cutting on the site of the Mausoleum contained the foundations of the tomb itself as described by Pliny, and that his *totus circumitus* of 411′ refers to an area contained within the larger circumference of this Quadrangle.

2. That the fragments of wheel and the two portions of colossal horse found on the site of the Mausoleum, belong to the *quadriga*, which stood on the summit of the pyramid.

3. That the steps found with the fragments of the *quadriga* on the north side of the *peribolus*, are part of the twenty-four steps of the pyramid mentioned by Pliny.

The first two of these postulates have, so far as I know, never been disputed. The assertion that the steps found by me are identical with those mentioned by Pliny, has not been so generally admitted; and objections to this assumption have been advanced which have not lacked the authority of eminent architects, and which are therefore entitled to due consideration here. It will, how-

ever, be perhaps more convenient to reserve the discussion of these objections till the grounds on which Mr. Pullan's Restoration mainly depends have been stated in a succinct form, detached from the mass of details with which in the preceding pages they are necessarily involved. The identity of the steps discovered *in situ* with those of the pyramid, is therefore, for the present, taken for granted.

The next point to be considered is the degree of credit to be attached to Pliny's description of the Mausoleum; a passage which has hitherto been a stumbling-block to all commentators, and which, taken by itself, presents apparent contradictions which have never been satisfactorily explained.

Those who have hitherto proposed restorations of the Mausoleum with nothing to guide them but this isolated passage, have made use of Pliny as an authority, in so far as his statements accorded with their own theories, deliberately setting them aside, or altering the text, whenever they found it convenient.

Now it is evident that, in a difficulty like this, mere arbitrary alteration of an author's text, or disregard of his meaning, can lead to none but uncertain conclusions, unless the felicity of the result obtained by such experiments be such as to carry instant conviction with it; in which case the hypothesis is regarded as a truth obtained by intuition.

If the various restorations of the Mausoleum

hitherto proposed are compared with one another,[a] it will be found that they agree in nothing so much as in their want of accordance with the author whose brief statement they profess to take as their guide; and that, while all of them depend more or less on arbitrary interpretation or alteration of the text, not one has commanded that general and immediate assent with which the world intuitively stamps a happy discovery in anticipation of its final and absolute demonstration.

It is the object of the present inquiry to show that a more consistent result can be obtained by accepting Pliny's account literally, than by any process of conjectural emendation or forced construction. It has been already stated, *ante*, p. 160, that, in presenting this passage to the reader, I have followed Sillig's later edition, as embodying the most complete and recent collation of the MSS. The points in which I have ventured to differ from this learned editor are the following:—With reference to the entire circumference (*totus circumitus*) of the Mausoleum, I have retained the usual reading,—

[a] For these restorations see Caylus, Mém. de l'Acad. des Inscript. xxvi. pp. 321—334. Choiseul Gouffier, Voyage Pittor. i. pp. 158—161. Quatremère de Quincy, Recueil de Dissertations Archéologiques, Paris, 1836, pp. 109—141. Leake, Transact. Royal Soc. Lit. 2nd Series, ii. pp. 44—49. Cockerell, Classical Museum, v. pp. 193-6. Falkener, Museum of Classical Antiquities, i. pp. 157—189. Texier, Asie Mineure, iii. pp. 121—132. Fergusson, Inquiry into the Principles of Beauty in Art, London, 1849, pp. 320—323. Canina, Architettura Greca, fol. Roma, 1832, pte. iii. pp. 103—108. [Compare his former work with the same title, Roma, 1827, pp. 131—136.] Hirt, Geschichte d. Baukunst bei d. Alten. Berlin, 1822, ii. p. 70, Taf. x. fig. 14*a*.

pedes ccccxi., for which Sillig substitutes the reading of the Codex Bambergensis,—*ccccxl.*

I prefer the former reading, because, as has been shown, the dimension 411′ for the circumference corresponds sufficiently with the size of the base of the pyramid as obtained by the evidence of existing remains, and also because this reading is supported by two very early MSS.,[b] and by several later MSS., while the reading *ccccxl.* rests, as far as I know, on the sole authority of the Codex Bambergensis.

If this latter reading be adopted, then we must suppose the *totus circumitus* to have been measured on the lowest step of the *podium*. In connection with this question it may be observed, that in Sillig's text, after the words *pteron vocavere*, the word *circumitum* is introduced, which is to be found in the best manuscripts, but which seems to have been rejected by former editors as a gloss interpolated by some commentator. Now, if Pliny wrote *pteron vocavere circumitum*, he could only mean that *pteron* and *circumitus* were to be understood in this passage as synonymous terms. We can hardly doubt that by *pteron* he means the Peristyle of thirty-six columns,[c] which surrounded the *cella*,

[b] The Codex Riccardianus and the Codex Vossianus, marked respectively as R. and V. in Sillig's edition.

[c] This sense of πτερόν is confirmed by the following passage in the Lexicon of Photius, *s. v.* Ὀρθόπτερον . . . . τὰ γὰρ εἰς ὕψος ἀνέχοντα πτερὰ ἔλεγον καὶ τὰ περίστωα (ed. Porson, 1822). In another passage Pliny applies the word *pteron* to Egyptian buildings, xxxvi. 13, § 19 :—Aliæ rursus extra murum labyrinthi ædificiorum moles ; pteron appellant. Compare Strabo, xvii. p. 805 : Τοῦ δὲ

and which was surmounted by the pyramid. Therefore, it is to be presumed, that his *totus circumitus* relates to the Peristyle, inclusive of the margin, which has been assigned for the lions, unless we suppose that in this passage Pliny applied the same term to two distinct parts of the edifice, which seems less probable.

The only other point in which I have deviated from Sillig's text is in reading *altitudinem* for *altitudine*. This addition of a letter, and that letter one specially liable to be elided or omitted by the transcriber, makes an essential difference in the theory of the restoration. If we read *altitudine*, the word *pyramidem* must be considered as understood, and then the sentence will read thus:—"*Supra pteron pyramis altitudine inferiorem* (*pyramidem*) *æquavit*,"—"Above the pteron a pyramid equalled in height the lower pyramid."

This somewhat forced construction has been put upon the passage by Canina.[d]

If, however, it be admitted that the *Pteron* or Peristyle edifice on which the pyramid rested was

προνάου παρ' ἑκάτερον πρόκειται τὰ λεγόμενα πτερά· ἔστι δὲ ταῦτα ἰσοϋψῆ τῷ νεῷ τείχη δύο κατ' ἀρχὰς μὲν ἀφεστῶτα ἀπ' ἀλλήλων μικρὸν πλέον, ἢ τὸ πλάτος ἐστὶ τῆς κρηπῖδος τοῦ νεώ, ἔπειτ' εἰς τὸ πρόσω προϊόντι κατ' ἐπινευούσας γραμμὰς μέχρι πηχῶν πεντήκοντα ἢ ἑξήκοντα. Plutarch, Isis, xx.: αἱ τε τῶν ναῶν διαθέσεις πῇ μὲν ἀνειμένων εἰς πτερὰ καὶ δρόμους ὑπαιθρίους. κ.τ.λ. See also Olympiod. in Plat. Phædr. p. 47, as cited by Jahn, Berichte d. K. Sächs. Gesellsch. d. Wissenschaft. 1850, p. 126. From a comparison of these passages, it would seem that πτερόν, when applied to Egyptian temples, means an astylar wing in the front of the ναός.

[d] Architettura Greca, folio, Roma, 1827, pp. 131-2. See also Fergusson, Principles of Beauty in Art, p. 321.

of the circumference assigned to it by Mr. Pullan from the evidence of existing remains, the basement on which such a *Pteron* rested could hardly have been spoken of by Pliny as a pyramid at all, if it was entirely contained within the quadrangular cutting, in which the foundations of the Mausoleum were laid; for, in that case, the difference between the circumference of its apex and the circumference of its base would have been very slight. On the other hand, we are not justified in assuming that the base of this supposed lower pyramid extended beyond the limits of the quadrangular cutting; for, in that case, the margin of native rock all round the Quadrangle would have been cut in beds for the reception of the foundation slabs, which was nowhere the case.

The reading *altitudinem* may therefore be considered as preferable, not only because by its adoption we avoid a forced grammatical construction, but because it confirms the general theory of the restoration as deduced from discoveries *in situ*.[e]

This question being disposed of, we will proceed to consider two well-known difficulties in Pliny's text.

The first of these difficulties is that 63′ being given as the dimension of the longest sides of the *pteron*, the sum of the four sides would be very much less than 411′, his *totus circumitus*.

That distinguished archæologist, the late Colonel

[e] In further support of the reading *altitudinem*, see Jahn, Berichte d. K. Sächs. Gesellsch. d. Wissenschaft, 1850, p. 126.

Leake,[f] was the first to suggest that the dimension 411′ relates to the circumference of the peristyle, and that the 63′ is the length of the cella. The combined evidence of the pyramidal steps and remains of the chariot group has converted this suggestion into an ascertained fact, unless we reject the evidence of the steps found *in situ*, on the ground that they are not the steps of the pyramid.

The second difficulty in the text is, that having given the dimension of 25 cubits, or 37½′, as the height of the *pteron*, Pliny goes on to say that above the *pteron* was a pyramid equalling in height the lower elevation, on the apex of which stood a *quadriga*, the addition of which made the entire height 140′. Here again the sum does not agree with the subordinate dimensions, and 65′ are left unaccounted for; for Pliny cannot mean that the chariot group was 65′ in height. In this case the two subordinate dimensions admit of being tested by existing remains, and it has been found that, while the fragments of architecture produce an order of the height required, we obtain, in like manner, by the combined evidence of the steps and remains of the chariot group, a pyramid, which, with its *quadriga*, makes up a height corresponding most remarkably with the height of the order obtained by another process.

This undesigned coincidence led me some time ago to the conclusion adopted by Lieutenant Smith and Mr. Pullan; namely, that the difference between Pliny's sum and his subordinate dimensions,

[f] See his memoir already referred to, in Trans. Roy. Soc. Lit.

amounting to 65′, must be assigned to the basement or *podium*, the existence of which is implied, though not distinctly stated, in his narrative. If we accept the steps found *in situ* as pyramid steps, no other solution of this difficulty appears to me possible.

It seems at first sight improbable that Pliny should state the dimensions of so celebrated a building in so confused and unsatisfactory a manner; but the want of consistency in his statement may be accounted for, if we suppose that in this, as in many other instances in his work, he has given us a page out of his note-book, the result of hasty and desultory reading. We know from Vitruvius, that Satyros and Pythios, the architects of the Mausoleum, wrote a treatise on its structure; and it is, therefore, not improbable that Pliny's description of it was hastily compiled from that work. *Hence the incoherent character of his statement as a whole, and its accuracy, at the same time, in details.*

The objections to any restoration on the principle first proposed by Lieutenant Smith, so far as I have had an opportunity of hearing them stated, are as follows:—

1. A pyramid, of the form given in his restoration, does not correspond with Pliny's statement, that it tapered like a *meta*.

2. It would be, comparatively, an insignificant feature in the design, and, in a perspective view, would hardly be seen.

3. The height of the basement would be excessive, in relation to the rest of the edifice.

4. The space between the peristyle and the cella wall would be too wide for the architrave to bear.

5. From the combined evidence of the architrave transverse beam and lacunar stones discovered *in situ*, it is to be inferred that the intercolumniation was much less than Lieutenant Smith has made it.

With regard to the first of these objections, it may be observed, that if a strict adherence to the letter of Pliny's text be here insisted on, it is not quite certain that he intended to compare the pyramid to an entire *meta;* his words may rather mean, that, as it tapered upwards, it took the form of a top of a *meta;* in which sense I was at first disposed to translate the passage. But admitting that the more usual interpretation is the more natural one, it may fairly be said that the information which this comparison conveys as to the form of the pyramid is not sufficiently definite to set aside the positive evidence which the remains discovered *in situ* afford; for the term *meta* is applied in good Latin writers to a variety of objects differing from each other considerably in form, but agreeing in the one fact, that their base is much wider than their apex.

With regard to the second objection, that a pyramid composed of twenty-four such steps as were discovered *in situ*, would be too small and insignificant, I would observe that, though the pyramid is mentioned by Pliny as if it were a main feature in the design, it may be doubted whether it was not regarded by Satyros and Pythios rather as a pedestal on which to elevate the chariot group,

than as an important feature in itself. From the general analogy of Greek art, it may be assumed that the chariot group which crowned the apex of the Mausoleum, was the key to the whole design, the point of central interest in the sculptural composition, of which the several members doubtless had a clear relation one to another. It is probable that Mausolus himself was represented in the *quadriga* accompanied by a tutelary goddess as charioteer, and that this representation symbolized his reception after death into that favoured realm which Greek imagination peopled with mythic heroes.

If such was the meaning of the architects in crowning their design with so colossal a group, they would obviously wish to reduce the pyramid to that scale which would be most suitable for its double purpose of pedestal and roof, not to exalt it into an independent feature, to the detriment of the colóssal sculpture which it sustained.

It may be further observed, in answer to this objection, that if the slabs found beyond the northern *peribolus* wall are not allowed to be steps of the pyramid, it is for those who deny this conclusion, to show what they are, and how they came to be lying in the position in which I found them.

That they are steps of some kind, no reasonable person can doubt; that they were originally placed in an exposed part of the building may be proved by the fact, that they have been protected by a weather-joint, and exhibit marks of drip which could only be the result of long exposure: while, again, the peculiar manner in which they were

fitted to one another by ridges and grooves, at once suggests the idea that they formed part of a roof of some kind.[g] When, again, we take into consideration the special circumstances of their discovery, that they were found lying intermixed with fragments of the *quadriga* group at a considerable distance from the building; that, from their position, the clean edges of the fractures, and other circumstances already noticed (*ante*, pp. 105-7), these marbles had evidently never been disturbed since their first fall, and must have been hurled over the *peribolus* wall, by a force such as that of an earthquake, not dragged behind this wall by human labour subsequently to their first fall, it would be difficult for the most sceptical critic to dispute the conclusion that the steps, the fragments of the colossal horses and wheel, and the other sculptures, fell, as they were found, together in one common mass from the summit of the pyramid.

The evidence in favour of this conclusion is indeed so strong, that one of the objectors to Lieutenant Smith's whole theory has been forced to explain away the fact of the finding of the steps in juxtaposition with the fragments of the *quadriga* group, by asserting that they are indeed steps which crowned the apex of the pyramid, but not part of the twenty-four steps mentioned by Pliny, and that, consequently, their dimensions furnish no

[g] The marble tiles which formed the ordinary roof of Greek temples, were ridged and grooved in the same manner as the steps of the Pyramid.—See Wilkins, in Walpole's Memoirs relating to Turkey, p. 591.

such data for the restoration of the Mausoleum as Lieutenant Smith and Mr. Pullan suppose. To assume this, is to ignore the fact, that from forty to fifty of these slabs, among which were four or five corner steps, were found behind the *peribolus* wall; that fragments of similar steps were found here and there in places in other parts of the excavations; that no steps of larger dimensions were found at all, except the two marbles engraved (Plate XXVI., figg. 7, 8, 9), which are evidently not from the pyramid, though they may have been steps of the stylobate: and lastly, that the measurements of these alleged pyramid-steps exhibit in their sum, a coincidence with Pliny's statement, too remarkable to be the result of accident.

I will now pass on to the consideration of the third objection,—that the height of the *podium* or basement is excessive in proportion to the rest of the design. It must be admitted that this *podium* is the part of Mr. Pullan's restoration least substantiated by the evidence of remains found *in situ*. Its height is arbitrarily determined on the authority of Pliny's text.

It is true that in several late MSS. the number of feet for the total height is changed from 140′ to 100′; but these MSS. cannot be opposed to the authority of the earlier codices, such as the Bambergensis, which agree in giving the higher number, and which the best editions have all followed in this case.

It must, moreover, be borne in mind that a high basement is a very usual feature in ancient archi-

tectural tombs, both Greek and Roman, as may be seen in such examples as the Harpy tomb, the tomb called that of Theron, near Agrigentum, the monument at Xanthus, as restored by Sir C. Fellows, and other examples given in Plate XXXI., or cited by Mr. Falkener in his Memoir on the Mausoleum in the Museum of Classical Antiquities.

In the view of the Appian Way, as restored by Canina from existing remains,[h] a tall basement forms so general a characteristic of the tombs, that Pliny's omission of any direct mention of this part of the design of the Mausoleum appears less surprising when we consider that this feature, thus expressed by implication, was one so familiar to his contemporaries, in examples daily before their eyes, that a Roman writer may have thought it needless to mention it more directly; especially if he wished not so much to give a complete description of the design of the Mausoleum, as to note in it what struck him as specially marvellous.

Mr. Falkener justly remarks, in the memoir already referred to, that a high basement is characteristic of the tombs of Lycia and Caria generally,[i] and that such a basement does not necessarily imply a bare plain wall, but, on the contrary, may, in the case of the Mausoleum, have been the most richly decorated part of the structure.

[h] Canina, La Prima Parte della Via Appia, ii. Tavv. xxi. xxii., and other plates, ibid.

[i] p. 179. See the Lycian tombs, given in Fellows' Lycia, and his remarks on the tombs at Alinda, ibid. p. 76, which are engraved by Lebas, Voyage en Asie Mineure.

The *podium* in Mr. Pullan's restoration would, I think, be improved by one or two belts of friezes, so disposed as to give an agreeable alternation of sculpture and plain masonry, in the same manner in which frieze and architrave are opposed in the order. As, however, no remains of reliefs suitable in scale for such decoration were found *in situ*, it has been thought best not to introduce such features without some sure evidence that they ever formed part of the original design. The entire disappearance of the marble casing of the basement may be accounted for by the fact that this part of the building would have been the first to suffer in the Middle Ages, and portions of it must have been stripped off, not only with the object of forcing an entrance into the sepulchral chamber within, but for the sake of the metal cramps with which it must have been attached to the solid core of the masonry. The stripping off this marble casing from the lower part of the building may have taken place long before the fall of the pyramid and *pteron*.

The next objection to Lieutenant Smith's restoration, namely, that the space between the peristyle and wall of the cella is too great to be sustained by transverse beams, has been disposed of by Mr. Pullan, by showing how this space may be bridged over by a peculiar *adaptation of the principle of* Egyptian vaulting, so that the transverse beam acts merely as a tie-beam, and the real structure of the roof is concealed by the lacunaria. This particular mode of combining horizontal vaulting with

a trabeated structure is one of which I know no other example.

The solidity of such a mode of structure would be masked under an appearance of extreme lightness, and the pyramid would seem to "hang in the void air," in the manner described in the well-known lines attributed to Martial.[k]

The adoption of the system of Egyptian vaulting in the Mausoleum is strictly in accordance with the character of the edifice, which, though certain features of temple architecture were embodied in its external design, was still not a temple but a tomb.

Now the system of Egyptian vaulting was adopted in the architectural tombs and treasuries of the Egyptians, Greeks, and the Etruscans, and probably prevailed in many parts of Asia Minor from a very early time down to the date of the building of the Mausoleum, and probably till a much later period.

Domes constructed on this principle were called Θόλοι, a term which we find in use as early as Homer.[l]

Such were those singular buildings at Mycenæ and Orchomenos, which Pausanias calls treasuries, but which have been thought by some recent authorities to be tombs of early Greek kings.[m]

[k] In the Liber de Spectaculis :—

"Aëre nec vacuo pendentia Mausolea
Laudibus immodicis Cares in astra ferant."

[l] Od. x. 442, 465.

[m] See Dr. K. Th. Pyl, Die Griechischen Rundbauten in zusammenhange mit der Götter- und Heroencultus, Greifswald, 1861, pp. 1—22, where this question is fully discussed.

The Regulini Galassi tomb at Cære, that near Smyrna ascribed to Tantalus, the tombs discovered by me on the supposed site of Syangela, the tomb seen by Lieutenant Smith at Labranda, the Lion tomb at Cnidus, and the group of tombs near it,[n] the royal tomb near Kertsch called the Koul Oba, the Nur-hags in Sardinia, and many others which might be mentioned, all contain chambers vaulted on the Egyptian principle.[o]

The extreme solidity of such a structure led to its general adoption in the case of those tombs where much wealth was deposited with the dead, and where the builders sought to enclose the real sepulchral chamber on every side in a mass of masonry too solid to be broken through without taking the whole structure to pieces.

It is to be inferred from the examples which remain, that the earliest built tombs of the Greek and Etruscan races were either circular or oblong chambers, covered with Egyptian vaults.

In later examples we find this mode of vaulting, combined with more or less of temple architecture, such as columns and entablature.

After the period of Alexander the Great, the *heroa* or architectural tombs approximated more and more to the temple type, and in these later monuments the trabeated roofs seem to have supplanted the Egyptian vaulting of the earlier

[n] These tombs at Syangela, Labranda, and Cnidus, will be described in a later part of this work.

[o] For a list of *tholi*, see the work of Pyl, already referred to, pp. 20–1.

period.[p] The Mausoleum, as restored by Mr. Pullan, exhibits a singular combination of both modes of structure, and may thus be regarded as a transition specimen.

One of the features in the design of the Mausoleum, both in Lieutenant Smith's and Mr. Pullan's restoration, is the unusual width of the inter-columniation. It has been objected that the evidence of the lacunar stone, combined with that of the architrave and transverse beam, proves that the space between the columns was much smaller; but Mr. Pullan has met this objection by the introduction of oblong lacunaria in the flanks of his building, and by applying the lacunar stone in the Museum to the shortest side.

In the fronts of the building, however, he meets the difficulty in another way, by substituting for the transverse beam used in the flanks a main beam nearly equal in width to the architrave.

This part of the restoration is matter of conjecture, no remains having been found of these larger beams. Their entire disappearance, however, is not surprising, when we consider that of the lower stone of the architrave only three pieces were found *in situ*, and of the upper stone only one.

The araiostyle arrangement adopted by Mr. Pullan provides ample room between the columns for the numerous statues which we know to have

[p] From a passage in Diodorus, iv. 30, compared with the quotation *ante*, p. 184, note l, it is to be inferred that the mode of vaulting employed in the Nur-hags was regarded in the time of these authors as archaic.

decorated the building, and which could hardly have been exhibited to advantage in a pycnostyle *pteron*. The length of the cella from east to west being taken as 63′, Mr. Pullan calculates the width from the evidence of the lacunar stone as about 62′, the difference representing Pliny's *brevius a frontibus*. This arrangement gives room for a spacious ambulatory, or *pteroma*, at either end of the *pteron*, to which probably there was access for the performances of the sacrifices,—ἐναγίσματα, periodically due from the living to the dead. This feature in Mr. Pullan's design is to be found also in the Ionic monument at Xanthus, as restored by Sir C. Fellows. There, too, the peristyle is araiostyle, with statues between the columns, and an ambulatory at either end of the cella. This monument was probably erected between B.C. 350 and 300.

Its design, when compared with that of the Mausoleum, exhibits a general inferiority, both in the sculpture and architecture, with such similarity in certain features as might be expected, if, as I suppose, the work of Satyros and Pythios was rather earlier in date; for so celebrated a monument could hardly fail to affect the character of sepulchral architecture, not only in the immediate neighbourhood of Halicarnassus, but in the adjacent provinces.

The position of the lions on either front of the *pteron* and at the entrance to the basement in Mr. Pullan's restoration, is borne out by the authority of a number of monuments in which lions are represented as keeping watch and ward at entrances,

and must be regarded as the symbol of vigilant custody. Lions were thus used in Egyptian architecture, and at the massive gateway of Mycenæ. They occur on a variety of sepulchral monuments, of which one of the earliest is that erected to Leonidas, at Thermopylæ. In some of these monuments, as will be more fully shown in a subsequent part of this work, the lion forms a principal part of the design, and in these cases must be regarded as the symbol not merely of custody, but also of the heroic valour of those for whom the monument was erected, as if no less noble an animal were worthy to guard the last resting-place of the brave.

In other cases this symbol is introduced in subordination to the main design. Thus in Etruscan sarcophagi of a late period, lions are placed at the angles, looking out as sentries; and they occupy the same position at the base of a similar monument at Tortosa, which seems to be of Phœnician character.[q] Among the ruins of the Ionic monument at Xanthus, Sir C. Fellows found two lions, which he has placed on either side of the entrance, as no other portion of the building appeared suitable for them; and on one of the monolithic Lycian tombs now in the British Museum, lions project on each side of the roof, into which they are inserted at the shoulder.

But the best authority for the position of the lions in the restoration of the Mausoleum is to be

[q] Ionian Antiquities, ii. p. 39. Léon de Laborde, Voyage de la Syrie. Paris, 1837, Pl. iii.

found in a passage in Diodorus, in which he speaks of the funeral car of Alexander the Great. On this car was a chamber containing the royal remains, at the entrance of which stood golden lions looking towards those approaching.[r]

From the examination of fragments of lions collected in the course of excavations, there is evidence that at least twenty must have been sculptured, and that they differed in scale. Mr. Pullan's restoration does not provide room for more than twelve. Our knowledge, however, of the real form of the basement is so imperfect that it is easy to conceive various modifications of this part of the design, by which room might be made for a greater number of lions.

In a design for the restoration of the Mausoleum communicated by Mr. C. R. Cockerell, R.A., to the exhibition of the Royal Academy of 1859, the lions are placed in a row on an attic above the cornice. But no trace of such a member was met with among the architectural marbles found *in situ*. Nor would there be room for the lions in this position, unless we assume that the area of the base of the pyramid was considerably less than it has been shown to be by the foregoing arguments.

After all the elucidation which the design of the Mausoleum has received from recent researches, the position of much of the sculpture discovered *in situ*

[r] XVIII. 27. Καὶ παρὰ μὲν τὴν εἰς τὴν καμάραν εἴσοδον ὑπῆρχον λέοντες χρυσοῖ, δεδορκότες πρὸς εἰσπορευομένους. In the funeral pile of Hephæstion, golden lions and bulls placed alternately, ἐναλλάξ, formed one of the rows, χῶραι.—Ibid. xvii. 115.

will probably remain for ever a matter of uncertainty. We may be quite sure that the two portions of colossal horse belonged to the chariot group, and that the principal frieze was an external one, forming a part of the order; so, again, there is every probability that the figure to which I have given the name Mausolus, and the female figure found with it, once stood in the *quadriga*. The positions assigned to the remaining statues, and the lions, though not proved by any direct evidence, have in their favour the analogy of other monuments. With regard, however, to the other friezes and the groups in panels, their respective places in Mr. Pullan's restoration must be considered as matter of conjecture.

In reference to the question how the interior of the tomb was arranged, all that was ascertained by excavation was the one fact that there had been an entrance on the level of the lowest course of the foundations closed with a great stone, and that a staircase from without led down to it.

It seems probable, as Mr. Pullan supposes, that the chamber in which the remains of Mausolus were deposited was on the level of this entrance, and it is remarkable how his arrangement of the interior tallies with that of the Koul Oba, near Kertsch, which has been already referred to, and which we can hardly doubt to have been the burial-place of one or more of the Greek kings of the Bosphorus.[s]

[s] For an account of this tomb, see Antiquités du Bosphore

In that celebrated tomb a small chamber full of gold ornaments was discovered under the pavement of the larger sepulchral chamber which was first explored; and it seems probable that, in royal tombs of this kind, the personage for whom the monument was originally raised, and whose interment would precede all others, was buried in the lowest part of the basement, and that, on a higher and more accessible level, chambers were made which provided space for future interments, and which, if the tomb were broken into in search of treasure, might serve to distract the attention of the plunderers from their principal object.[t]

Above the domical chamber in the basement Mr. Pullan places another chamber similar in size, which occupies the interior of the cella. By this arrangement the pyramid would be effectually supported, and its vertical section would resemble that of the Koul Oba, the structure of which, when divested of its outer covering of earth, may be

Cimmérien, conservées au Musée Imp. de l'Ermitage. St. Petersb. 1854, i. pp. i—l.

[t] Compare the story of the disinterment by Cambyses, of the supposed body of Amasis, Herod. iii. 16 :—*τὸν μὲν ἄνθρωπον τοῦτον ...ἔθαψε ἐπὶ τῇσι θύρῃσι ἐντὸς τῆς ἑωυτοῦ θήκης, ἑωυτὸν δὲ ἐνετείλατο τῷ παιδὶ ἐν μυχῷ τῆς θήκης ὡς μάλιστα θεῖναι.* In the course of Colonel Howard Vyse's excavations in the pyramids of Gizeh, he came to a tomb where a similar arrangement seems to have been contemplated, though not actually put in practice.—(See his work on the Pyramids at Gizeh, ii. p. 81.) See also Ch. Lenormant, Antiquités du Bosphore Cimmérien, Paris, 1861, pp. 28—30, who supposes that the lower and smaller chamber in the Koul Oba contained the remains of Pairisades I., king of the Bosphorus; and that the larger chamber above was the burial-place of his eldest son, Satyrus II.

defined as a hollow pyramid containing a *tholus*, or domical chamber. The arrangement of the *tholi*, one above another, may be seen in the Nur-hags in Sardinia. (See Plate XXXI. figg. 1, 2.) It is analogous to that of the chambers in the Egyptian pyramids, which, in some instances, contain a number of chambers one above another, discharging the superincumbent weight.[u] The uppermost chambers at the Mausoleum may have served as a treasury where objects dedicated to the manes of Mausolus were finally deposited, after having been brought by mourners to the door of the tomb, and where the *supellex* or household furniture of the royal tomb was laid up.

These chambers again may have been provided as a place of burial for the inferior members of the royal household, or for future princes of the family of Hekatomnus.[v]

The main features in Mr. Pullan's design having been now described, and the evidence which has led to their adoption having been submitted to the

[u] Fergusson, History of Architecture, i. p. 219. Vyse, Pyramids of Gizeh, ii. p. 158.

[v] It may be objected to this part of Mr. Pullan's restoration, that it cannot be reconciled with Guichard's statement, that the larger sepulchral chamber discovered by the Knights was square—"une belle grande salle carrée," and adorned with columns and friezes; and it may be alleged that the chariot frieze and the reliefs in panels are both suitable to such internal decoration. Admitting that the latter argument has some force, it may be observed that, if we take Guichard's statement literally, we must suppose an order of columns differing, of course, in scale from those of the *Pteron;* but no trace whatever of such internal columns was found in the excavations.

reader, it may be well to confront the restoration thus obtained with the passages in ancient authors in which the Mausoleum is noticed.

It has been shown that it occupies a site precisely corresponding with the position in the ancient city assigned to it by Vitruvius, and within a precinct agreeing sufficiently in dimensions with the area given by Hyginus for its *peribolus*.

The magnitude of its foundations, and the remains of architecture and sculpture discovered *in situ*, confirm the statements of Pausanias[w] and Lucian,[x] as to its exceeding size and sumptuousness; we know now that the features in the design which Roman writers have especially dwelt upon,—the *pteron*, the pyramid, the *quadriga*, the exquisite sculpture of men and horses, and the choiceness of the material,—were no exaggerated statements of a late and uncritical age, but a simple record of fact: and lastly, in the skilful mode in which the pyramid was upheld, we recognize that structure "hanging in the void air," of which the Carians were so justly proud.[y]

The admiration which the Romans felt for this

[w] Pausan. viii. 16, 4:—*ὁ μὲν δὴ ἐν Ἁλικαρνασῷ Μαυσώλῳ βασιλεύσαντι Ἁλικαρνασέων πεποίηται· μέγεθος δὲ οὕτω δή τί ἐστι μέγας καὶ ἐς κατασκευὴν περίβλεπτος τὴν πᾶσαν, ὥστε καὶ Ῥωμαῖοι μεγάλως δή τι αὐτὸν θαυμάζοντες, τὰ παρὰ σφίσιν ἐπιφανῆ μνήματα Μαυσώλεια ὀνομάζουσιν.* Cf. Vitruv. ii. 8; Strabo, xiv. p. 656; Maxim. Tyrius, Dissert. xxxiv. ed. Reiske, ii. p. 167.

[x] Lucian, Infer. Dialog. xxiv.:—*τὸ δὲ μέγιστον ὅτι ἐν Ἁλικαρνασσῷ μναῆμ παμμέγεθες ἔχω ἐπικείμενον, ἠλίκον οὐκ ἄλλος νεκρὸς, ἀλλ' οὐδὲ οὕτως ἐς κάλλος ἐξησκημένον, ἵππων καὶ ἀνδρῶν ἐς τὸ ἀκριβέστατον εἰκασμένων, λίθου τοῦ καλλίστου, οἷον οὐδὲ νεῶν εὕροι τις ἂν ῥαδίως.*

[y] See the lines from the poem de Spectaculis cited *ante*, p. 201.

masterpiece of Hellenic art was such, that the name Mausoleum came to be applied to all sepulchral monuments distinguished for size and beauty. From the fact that the name was so generally adopted, it is *à priori* probable that the design itself suggested many imitations. Accordingly, we find in various parts of the Roman world tombs, of which the peculiar type indicates their derivation from a common original.

The designs of these tombs generally present the three features which make up our idea of the Mausoleum; namely, the lofty basement, the *pteron*, and the pyramid. This triple combination, variously modified, may be seen in the examples engraved (Plate XXXI.), which are of very different periods, the earliest being probably not much later in date than the Mausoleum.

In these designs occur many deviations from the original type: the *pteron* is constantly represented by columns or pilasters engaged in the wall. The Madrazen and other African monuments are circular buildings; and in the examples given (Plate XXXI.), great differences may be observed in the relative proportions of the three principal members of the design. In the later monuments of this class, figg. 5, 8, 9, the whole structure is taller, and the tomb approximates to the form of the steeple of St. George's church, Bloomsbury, which, it is well known, is an imitation of the Mausoleum, according to the Romanized notions of an English architect in the 18th century.

Such differences are no more than might be ex-

pected to occur, if imitations of a particular type of building were executed in various countries, and if this process of repetition extended over several centuries. Time and distance would by degrees weaken the tradition of the original type, which would moreover be modified by local circumstances in every repetition.

The fact, however, that the original features of the Mausoleum can be so clearly recognized in designs differing so widely one from another, is not without its value in the present inquiry.

CHAPTER VIII.

Description of the sculptures of the Mausoleum. The two statues found with the steps of the Pyramid. Other torsos; heads and fragments. The lions. The frieze of the Order. Two other friezes. Reliefs in panels. General theme of the sculpture; how far to be inferred from existing remains. Connection of the myth of Amazons with the early history of Caria. The *quadriga* probably a symbol of the reception of Mausolus among heroes. Analogous representations on Roman imperial coins. General character of the sculptures of the Mausoleum. Their correspondence in style with our preconceived notions of the school of Scopas. Head of Mausolus an early example of the Ideal portrait. The sepulchral chambers within the Mausoleum. Their contents probably similar to those deposited in other royal tombs, such as the Koul Oba and the sepulchre of Cyrus.

It has been the object of the preceding chapters to place before the reader, in a digested form, all the evidence relating to the architecture of the Mausoleum which we could obtain, either from ancient authors or from discoveries *in situ*, and to show how this evidence has been applied in solving the problem of the restoration.

All that relates to the structure of the edifice having been thus fully discussed, this seems to be the place to offer a few critical remarks on the remains of sculpture found *in situ*, which have been from time to time noticed incidentally in the

narrative of the discoveries, or in discussing the theory of the restoration.

These remains consist of two classes,—sculptures in the round, and works in high relief.

Of the sculptures in the round, the most important are the fragments of the chariot group, consisting of the statue commonly called Mausolus; the female statue found with it, which I suppose to have been a Goddess, represented as his charioteer, and the two portions of horses.

It has been already remarked, *ante*, p. 104, that the head of Mausolus is evidently a portrait, though treated in an ideal manner. The cast of features is very singular, and resembles, so far as I know, no other type to be met with in Hellenic art. The hair, springing upwards from the forehead, falls in thick waves on each side of the face;[a] the beard is short and close; the face square and massive, with proportions somewhat shorter and broader than those usually observable in Greek art; the eyes, deeply set under overhanging brows, have a full and majestic gaze; the mouth is well formed, with a set calm about the lips, indicating decision of character, and the habit of command: both the form and features are those of a man in the prime of life.[b]

[a] This peculiar upward springing of the hair over the forehead is characteristic of the lion, and has been copied by the Greek sculptors in the type of Zeus, and some of his real or pretended descendants, such as Alexander the Great. See the article *Coma*, in Smith's Dictionary of Antiquities.

[b] "The connection of the head with the body has been determined by a corresponding fragment, uniting the chin with the neck;

Mausolus wears an ample mantle, under which a *chiton*, or under-garment, is shown on the breast. As both arms are wanting from the shoulders, the original action of this figure can only be matter of conjecture; but, from the fact that the left shoulder is a little raised, and that the folds of the mantle are all drawn towards it on the back, I should be disposed to think that the left hand was slightly advanced, resting on a sceptre. On the left side, about opposite the knee, the outer fold of the drapery terminates abruptly, forming a step, below which the marble for several inches presents a roughly-chiselled vertical plane. If the statue stood, as I suppose, in the *quadriga*, this step may have been cut to make room for the side rail of the car.

The weight of the body is thrown on the right foot, which is entirely covered by the shoe. This consists of a close-fitting slipper, over which is a stronger shoe or boot, laced on the instep with straps passed through eyelet-holes at the sides. The left foot and ankle are wanting.

The drapery of this figure is grandly composed, and the general effect very majestic. The head is, perhaps, a little large; and in the general proportions there appears to be some deviation from the standard of the highest ideal art.

which again is united to the shoulders by another fragment, on the lower edge of which are remains of the lead originally used to secure it in its socket, and still presenting an impression of the marble surface immediately below it."—E. Hawkins, Further Paper respecting the Excavations at Budrum : London, March 26, 1858.

Altogether the aspect of the figure accords very well with the description which Mausolus is made to give of himself in Lucian's Dialogue. "I was," he says, addressing Diogenes, "a tall, handsome man, and formidable in war."[c]

The female figure which I suppose to have been a goddess acting as charioteer, has lost the head; over the back of which has been drawn a large shawl or *peplos*. This garment is wound round the body in rich folds, and gathered in beneath the left arm. Under it is a talaric *chiton*, having sleeves fastened on the arm with studs. The mantle has been drawn over the back of the head. Both the arms of this statue are broken off below the elbow; but it is evident, from their action, that the hands were advanced in front of the body, and their position corresponds sufficiently with that of a figure holding reins. The fullness of the form, and the slight droop given to the bosom, indicate mature age. In this statue and that of Mausolus, great skill has been shown in the treatment of the drapery, in which a general breadth and grandeur of effect is combined with an extraordinary refinement and delicacy in execution. Each fold is traced home to its origin, and wrought to its full depth; a master hand has passed over the whole surface, leaving no sign of that slurred and careless treatment which characterizes the specious and meretricious art of a later period. One foot of this statue has been preserved, and is an exquisite specimen of sculpture, the more precious because we possess so few ex-

[c] Lucian, Infer. Dialog. xxiv.

amples of extremities finished by the hands of the great masters of the earlier Greek schools. The other foot is broken off at the instep. Both feet, otherwise bare, rest on thick soles, the mode of attachment of which is not apparent.

Of the horses of the *quadriga* we possess several fragments, the two principal of which are half of a body, terminating at about the middle of the back in a joint, and the anterior half of another horse, made up from several fragments, and broken away with an irregular fracture behind the shoulder. It has been already stated (*ante*, p. 103), that these two portions are thought to belong to two different horses. In both portions the legs have been broken away close to the body. The bronze bridle and harness, on the anterior half, have been already noticed (see the *cut*, p. 103). Of the remaining fragments, the most remarkable are two hoofs and a hough-joint. From the attachment of these hoofs to the base of the *quadriga*, as well as from the action of the shoulders and hind-quarters, it may be inferred that all the horses were in a standing position. Perhaps the fore-feet of one or two out of the group were represented pawing the ground.

The attitudes of the heads would, doubtless, be varied. From the absence of the legs, from the unsightly joint in the middle of the body, and from their immense scale, these fragments of the work of Pythios produce, at first sight, a disagreeable impression on the eye. They labour at present under the further disadvantage of being seen in a

space much too small for the exhibition of colossal sculpture. Those, however, who by long study of Greek art, have learnt to overcome the disparaging impression produced by so much mutilation and dislocation, will recognize in these fragments a consummate knowledge of form, and a grandeur of style sustained throughout.

At first sight, the surface of the sculpture, and particularly of the hinder half of the horse, appears coarsely and carelessly wrought; but, on more attentive study, it will be seen that all the parts exposed to view from below are finished with great care. The back, which could never have been seen after the erection of the group, is less carefully chiselled. The surface of the body is purposely left rough, to produce a bolder effect at a distance. The mane is not hogged like that of the horses on the pediments and frieze of the Parthenon, but hangs in loose flakes, and is treated in a picturesque manner, very unusual in Greek art. Viewed under its present disadvantages, the horse's head appears a little heavy, and deficient in animation.

Next in importance to the group from the *quadriga* is the torso of an equestrian figure, the discovery of which is noticed *ante*, p. 90.[d] This torso has been cruelly mutilated. Of the horse, nothing remains but the body, cut off at the shoulders and hind-quarters, with a small portion of the right arm; of the rider, only the body from the waist to the hips, the left hand and wrist, the right thigh

[d] Papers, &c. p. 8.

and leg, nearly to the ankle. The whole of the left leg, and much of the body of the horse on the same side, have been broken away by blows from a sledge-hammer. The rider in this group wears close-fitting trousers, called *anaxyrides*, a dress characteristic of the Asiatics generally in ancient art, and especially of Amazons, over which falls a tunic with sleeves, girt at the waist and reaching halfway down the thighs. The left hand holds the reins. The horse is in a rearing attitude, as is shown by the bend of the body, and by the action of the shoulder and arm. Moreover, a hoof was found, corresponding in scale with this horse, which had never been attached to the base, and, probably, belonged to an uplifted foreleg. In the present mutilated state of this group, the action of the rider cannot be made out with certainty; but, perhaps, this figure was represented striking downwards with a spear at a prostrate foe; and it is probable that the torso originally formed part of a group commemorating the triumph of an Asiatic warrior over one of his enemies. Whether one of the princes of the race of Hekatomnus or a mythical personage is here represented, cannot be determined. The upper jaw and nose of a horse found near this torso may have belonged to it. In that case, the mouth of the horse must have been represented open, and his nostrils distended with rage, as would be characteristic of a horse in a battle-scene. (See the horse in the upper view from the frieze, Plate X.)

Notwithstanding the great mutilation which this

torso has received, it may be considered one of the finest examples of ancient sculpture which has come down to us. The body of the horse is a masterpiece of modelling; the rearing movement affects the whole frame, and the solid and unwieldy mass of marble seems to bend and spring before our eyes, as if all the latent energy of the animal were suddenly called forth, and concentrated in one forward movement. Equal skill is shown in the representation of the rider. Nothing can be more perfect than his seat. The right leg and thigh seem to grow to the horse's side; the manner in which the waist yields to the movement of the rearing horse, is admirably expressed by the composition of the drapery; the position of the bridle-hand is carefully studied; the elbow is fixed, the wrist flexible, the thumb firmly bent over the reins.

In the treatment of the surface, this torso forms an interesting contrast to the horses from the *quadriga*, being highly wrought, as if meant for close inspection. It is, however, nowhere polished, but has been finished with delicate hatched lines. It is curious that, while the back of the left hand is most elaborately wrought, the veins being shown on the surface, the thumb, which is seen from another point of view, is merely sketched out in a rough but masterly manner. The upper part of the figure has been united at the waist to the lower part by a joint.

From the appearance of the left side of this torso, I should infer that it had been exposed to much wanton mutilation since the time of the Knights.

On the left side the marks of many bullets appear on the shoulders; showing that it has, probably, at some time, served as a target for the rifles of the barbarous residents of Budrum. The hind-quarter of the horse and the left leg of the rider on this side, have been broken away with a sledge-hammer; from the blows of which the marble is still starred and battered in many places. Several of the pieces of the hind-quarter broken off in this manner were found in the course of the excavations in a garden wall a few feet distant from the spot where the torso was lying.[e] Of these fragments, four are now rejoined in their original positions. Under the belly of the horse has been an oblong marble support, which, at its junction with the body, measured 14″ by 11″.

It has been mentioned, *ante*, p. 99, that in the eastern part of the Quadrangle was found a torso (No. 235),[f] which originally represented a male figure seated, and wearing a *chiton*, over which is an ample *peplos*, which passes across the lap, lying in thick, heavy folds.[g]

The upper part of this figure is broken away irregularly below the breast; on the right side, the middle part of the arm, and the body, to about half-way below the knee, have been preserved; on the

[e] Papers, &c. p. 10.

[f] For convenience of reference, the numbers at present attached to these sculptures in the British Museum, are cited in describing them.

[g] Papers, &c. p. 13, where this figure is erroneously described as female.

left, the knee and most of the thigh, with all the drapery covering them, have been broken away. A fragment of the left leg remains, which must have been concealed under the *chiton*, if, as I suppose, it reached to the feet. The figure is so mutilated that the original motive cannot be ascertained. From the direction of the folds on the left side, I should infer that the left hand rested on a spear held vertically, while the right arm was advanced, as if the right hand had held a *phiale*. The seat is a rectangular *thronos*, on which is a thick cushion overhanging on each side. From under this cushion drapery falls over the seat below. At the back the drapery has little depth of folds, and the general flatness of the treatment in this part leads me to suppose that the figure was placed so as not to be seen from behind. The type seems that of a divinity, perhaps Zeus, though he is generally represented, in Greek art of the best period, with the upper part of the body nude. The surface of this statue is mutilated in so unsightly a manner, that it is difficult to form a judgment as to its merits. The inner portion of the arm, where the original surface is preserved, is finely modelled; but the drapery is, perhaps, a little heavy in treatment, and is certainly not so delicately wrought as that of Mausolus, and the female figure already described. The statue has been painted; and the folds of the drapery are still coated with an artificial surface of a purple colour. I am inclined to think that this is the original pigment chemically united with a deposit from

water. The statue was found under the wall of one of the two houses marked in the Plan as Ahmet's, and had evidently been long exposed to the drip of the roof. On its first discovery, two colours seemed blended on the surface, which, by exposure to the air, rapidly faded. It is possible that this effect was caused by the decomposition of a portion of the purple in the ground. The present height of this statue is 5′ 8″, to which may be added about 2′ 6″ for the head and shoulders.

On the western side, near the equestrian figure, was found the torso of a male figure (No. 237), clad in a *chiton*,[h] girt at the waist and reaching a little below the knees. This torso is broken off at the waist, and also below the knees. The figure has stood in an easy attitude, the right leg crossed over the other. In one of the folds at the back is a streak of purple colour. The composition of this figure is simple and dignified. The present height of the torso is 3′ 5″.

On the north side of the Quadrangle was found a fragment of a draped male figure (No. 236), which must have equalled in scale that of Mausolus.[i] This torso only comprises part of the body, between the waist and the hips, with part of the left breast, which has been joined on since these marbles arrived in England. A *peplos* passes diagonally across the body and over the left shoulder; under the *peplos* is an under garment drawn closely over the form. This torso is so much mutilated, and the marble is

[h] See *ante*, p. 90, Papers, &c. p. 8.

[i] See *ante*, p. 101, Papers, &c. p. 13.

so discoloured, that the motive and character of the original figure cannot be ascertained.

Two more draped torsos remain to be described, one of which (No. 279) was found near the Imaum's house, on the north side. This consists of the body of, apparently, a male figure, draped in a *chiton*, which falls over a girdle, and reaches to the knees. The height of this fragment is 3′ 1″.[j] The other torso (No. 281), found on the south side, consists of a portion of a female figure: it is draped from the waist to the knees in a *chiton*.[k] The present height is 3′ 6.″ The figures to which these torsos originally belonged, were probably from 7′ to 8′ high. On the back both of Nos. 236 and 279 the drapery is very flat, as if not intended to be seen.

A number of heads were discovered, which have not as yet been appropriated to bodies, and which may be described as follows:—

No. 259. A colossal female head, of which an engraving is given p. 104. Round the face is a triple row of curls symmetrically arranged, each curl forming a perfect volute. The remainder of the hair is drawn back into a conical form, under a close-fitting cap or coif, a kind of head-dress which may be seen on coins of Syracuse of the finest period. This head is remarkable for the largeness and simplicity of treatment, and the intense pathos of the expression. The cast of features, though ideal, does not recall any of the known types of goddesses; we may, therefore, venture to consider it a portrait.

[j] Papers, &c. p. 30. See *ante*, p. 111.

[k] Papers, p. 46. See *ante*, p. 129.

On the south side of the Quadrangle was found a much-defaced fragment of another head, the resemblance of which, in head-dress and style, to the one now described, has been already pointed out *ante*, p. 129.

No. 260. Part of a female head, also similar in scale and in style. The only part of the features which remains is the brow with one of the eyes; round the forehead is a triple row of curls, more globular in form than those with which the other head is encircled. Behind these curls the hair has been covered with a veil or cap.

A colossal female head, covered with a veil, which has been fitted at the base of the neck into a socket. This head has been veiled. It is nearly destroyed by fire, having been built into the chimney-corner of the Imaum's house; but the outlines are very fine.

No. 264. A male beardless head, found among the pyramid steps in the Imaum's field. The hair is drawn back from the face, as on heads of Apollo, to the type of which deity this head has much resemblance. Notwithstanding the great mutilation which it has sustained, the face is one of extreme beauty. The style of the sculpture is, perhaps, richer and more flowing than that of the female head first described.

No. 187. A bearded face, split away from the head on the right side. The surface of this fragment is in very fine condition, and from the singular accident of the fracture, the left side of the face is left quite uninjured. The features have a mild

and dignified expression. The beard and hair are short and close. The countenance cannot be identified with any of the known types of divinities; on the other hand, it seems rather too ideal to be a portrait. This head is on a smaller scale than those previously described, and is perhaps inferior in style; the execution is rather mechanical.

No. 263. A male head,[1] wearing the head-dress called *kyrbasia* or *tiara*, a kind of cap worn by the Persians, and which may be recognized in several representations of satraps in Greek art.[m] This head-dress appears to have been a conical cap made of linen or some flexible material, the point of which fell forward on the forehead. The back of this cap is prolonged down the nape of the neck, to protect it from the sun, and is sometimes bound under the chin with a broad band, as in the marble here described. The features are so much defaced that the original character of the countenance can no longer be made out; but, in all probability, this head is a portrait of one of the princes of the house of Hekatomnus. It cannot have belonged to the mounted warrior in the Persian dress already described, as the head is too small in scale for this figure.

[1] See Herod. v. 49; vii. 61, 64; and Baehr's note on both the latter passages.

[m] See the coins engraved in the Duc de Luynes' Numismatique des Satrapes et de la Phénicie, Paris, 1846, Pl. I. fig. 5; Pl. II. figs. 3, 4, 5; Pl. VI., Pl. VII. figs. 1, 4. Compare the figure of a Persian in the celebrated Mosaic representing one of the battles between Alexander and Darius, found at Pompeii. — Müller, Denkmaeler d. A. Kunst, i. Taf. lv. 273.

No. 265. A youthful male head, rather exceeding life size. The type is that of a hero, and may represent Theseus. The head is turned to the right; the neck has been fitted into a socket. The nose and mouth are much defaced, and the surface generally is in a bad condition; but the beauty of the original motive may be still traced, in spite of these lamentable injuries.[n]

Fragments of three faces, all about life size, and four necks, each of which fitted into a socket, were also discovered.

No. 262. A youthful head, wearing a Phrygian cap. This is under life size. As no other fragment of sculpture in the round on so small a scale as this was discovered, I have been inclined to think that this head belonged to a large work in relief, especially as at the back it presents an appearance as if broken off from a slab; but, in the absence of more positive evidence, it would not be safe to assume the fact that reliefs on so large a scale were employed in the Mausoleum. This head is broken off at the neck; the features are much defaced.

It is to be regretted that the few fragments which have been saved from the general wreck of the sculptures scarcely afford any information as to the probable number of the statues, their original position, or the subjects which they represent.

Something, however, may be learned from the study of the fragments of the extremities, as well as from the torsos and heads.

[n] Found on the south side of the platform. See *ante*, p. 129.

There are portions of feet from at least twelve statues, most of which are covered with sandals. These feet have stood on rocky bases like the lions. There are also a number of fragments of legs, arms, and hands. An examination of these fragments shows that the statues varied in scale; some were of colossal proportions, but several could not have exceeded life size. It is not, therefore, likely that all of them were placed in the intercolumniations. It may be thought that some of these statues were dedications made at various periods after the erection of the tomb; but their general uniformity of style and the absence of any fragments of votive inscriptions lead me to infer that all the statues formed part of the original design. The arms and legs are mostly naked; the long sleeves to the *chiton*, or the *endromides*, occur only as the exception. The muscles are in no instance in violent action; nor is there any evidence that the fragments are from groups. It is to be inferred, therefore, that the statues generally in the Mausoleum were isolated, and standing in attitudes of repose. This view is borne out by the character of the drapery on most of the fragments from torsos, which, in the direction of its folds, shows no indication of rapid movement or violent action of any kind.

Among the sculptures lying under the pyramid steps on the north side, was the lower part of a helmet, with a vizor covering the whole face. This vizor appears to be a kind of mask on which are represented, in very low relief, the beard and moustache. The helmet rests on a fragment of marble

which appears to be a portion of a rocky base. It is probable, therefore, that it has been placed by the side of a statue, which, from the scale of the helmet, would not have much exceeded life size.

On the first discovery of this fragment, I imagined that it had been broken off from a helmeted head, which, from the peculiar treatment of the beard, appeared to be an example of archaic sculpture;[o] but further examination has convinced me that a helmet placed on the ground is all that is intended to be represented. Though found amid the remains of the *quadriga* and pyramid steps, it is evident, from the smallness of the scale, that this helmet could not have been placed so high.

It is singular that Guichard, in describing the sarcophagus of Mausolus, speaks of its *tymbre de marbre blanc*, which I have translated "helmet." Were it not that the rough character of its base seems unsuitable for such a position, I should be tempted to believe that the marble helmet found by me was that seen by De la Tourette in the sepulchral chamber.

Among the most remarkable features in the sculptural decorations of the Mausoleum were the lions, of which it is probable that we possess fragments of about twenty. Their proportions are evidently adjusted to three different scales. The largest measure 4′ 6″ from the point of the shoulder to the hind-quarter; and the second in scale, about 3″ less. Their height cannot be exactly ascertained; but it

[o] See Papers, &c., p. 22, and *ante*, p. 105, where this helmet is described as an archaic helmeted head.

does not seem to have much exceeded 5′. One head, measured across the face in a line with the eyes, was 2″ less in width than the largest head. A paw was found smaller than any of the rest, which seems to correspond in scale with this head.

From the examination of the numerous fragments of legs and paws, and also from the action of the shoulders and hind-quarters, there can hardly be a doubt that all the lions were represented standing like sentinels. Their heads, which seem to have been all placed nearly on the same level, are turned, with a vigilant look, a little on one side or the other, as if they were guarding the approaches to the tomb.[p]

The expression and attitude of each is beautifully varied. The jaws are open just far enough to show the teeth and tongue. In some, the countenance has an angry look; in others, the natural savageness of the animal seems tempered with a certain earnestness and pathos in the expression, which is very peculiar. The frame of these lions is square and compact, the forms are wiry and muscular, but not gaunt and bony, as in the two lions found by Sir C. Fellows at Xanthus. The mane is very short and close, and the hind-quarters do not exhibit that falling off and disproportion which is so remarkable in the African lion, as we know it from living specimens. In comparing the lions of the Mausoleum with nature, it must be borne in mind that many deviations from the life may have been made by the sculptors, in order to adapt the

[p] Compare the description of the lions on the funeral car of Alexander the Great, cited from Diodorus, *ante*, p. 206.

forms of these animals to the architectural design of which they unquestionably formed a part.

Considerable differences may be observed in the execution and treatment of these lions. One found on the northern *peribolus* wall (No. 240), and another also found on the north side (No. 249), seem in an unfinished state. Moreover, the details of the anatomy in these are rendered in a somewhat conventional and meagre manner, and the form of the animal is not so grandly conceived. Both these lions, and another (No. 248), also from the north side, are marked on the hind-quarter with the letter Γ,[q] probably to indicate their position on the building. The finest of all the heads is one (No. 253) found very far to the north (see *ante*, p. 116), which has not yet been appropriated to a body. This head is remarkable for the rich and flowing lines of the composition. In the sculpture of the mouth and nose a masterly discrimination of surface is shown, and the execution, though highly elaborate, is free and bold, the artist never losing sight of the general effect. It is possible that the less carefully executed lions were intended to be seen at a greater distance than the others; but I am disposed to consider them as works from which, for some reason or other, the master hand was withheld.

Great knowledge and skill of execution are shown in the sculpture of the paws, which are beautifully varied in action. In some, the claws are drawn in, in others protruded; in one instance,

[q] Two other lions (Nos. 246, 250) are marked on the hind-quarters with the letter Λ.

a single claw is advanced, the marble being cut away so as almost to detach it from the paw. The sculptors of the Mausoleum seem to have felt that, in the representations of animals of the feline species, very much of the general expression and mood may be given by the action of the paws.

Colour was found on these lions in two instances. On the hinder half of a lion from the north side (No. 250), the inside of the thigh, which had been protected by the weather, still retained the colour with which it had been painted, which was a dun red. The tongue of the lion from the northern *peribolus* wall (No. 240) was painted the natural colour, and the prickly surface seemed to be imitated in the chiselling. It is to be presumed that the whole of these lions were painted. Their colour was, probably, a tawny red. The marble in which they are sculptured appears to be Pentelic: it is evidently of a quality well suited to resist decay; for much of the surface is as fresh as on the day when it left the chisel. They have stood on detached rocky bases, which average in thickness 6″. At an average depth of 2″ from the upper surface of several of the bases, a horizontal line is observable, below which the face of the base has evidently not been exposed to the weather. It is to be inferred that the part of the base below this line was inserted in a lower plinth.

Among the heads built into the walls of the Castle was that of a lioness ranging in scale with the lions: this was presented by the British Government to the Imperial Museum at Constantinople,

shortly after its removal from the Castle. Part of the hind-quarters of this or another lioness was found by me in the excavations. Over one of the gateways at the entrance to the Castle, was the anterior half of the body of a panther, which I removed together with the lions. There is no evidence that this panther belonged to the Mausoleum; at the same time, the style is very similar; and a hind-quarter, and a paw, were found in the excavations, which correspond in scale, and may therefore have belonged to it. The character of the animal is extremely well rendered; he is turning to the right; his lower jaw is only roughly blocked out in the marble, but he appears to be holding some object in his mouth. This panther may have formed part of a group, and would not have ranged in line with the lions.

In Mehemet's field, on the west side (see *ante*, p. 111), was found the body of a colossal ram (No. 258), broken off at the shoulder. On the right side is a projection cut off square, showing where the body has been attached to some object. This ram may, therefore, have stood beside a figure.

Part of the head and one foot of a boar were found; to which two other fragments—a hind-quarter and a shoulder (No. 287)—seem to belong. This animal must have been about life size. It may have formed part of a boar-hunt, as, among the fragments is part of the head of a hound corresponding in scale with this boar. An arm, and a paw, probably from the same dog, were also discovered.

Two other cloven hoofs, both on bases, were found: one probably belongs to the ram; the other, being much larger, may be that of an ox.

Sculptures in Relief.—The works in relief found on the site of the Mausoleum consist of portions of three distinct friezes, and a series of reliefs in panels. Of these, the most important is the frieze of the order. Of this frieze the British Museum possesses sixteen slabs, twelve[r] of which, as has already been stated, were removed from the Castle in 1846, and four more were discovered by me. One other slab of this frieze is still preserved in the Villa di Negro, at Genoa,[s] to which place it was probably transported from Budrum by one of the Knights of St. John, some time in the fifteenth or early in the sixteenth century. The entire length of these slabs is 85′ 9″: they all represent combats of Greeks and Amazons. The slabs do not follow

[r] Engraved and published by Dr. Emil Braun, in an interesting memoir, Annali dell' Instit. Archeol. di Roma, xxii. pp. 285—329. Monumenti Ined. v. Tavv. 18—21.

[s] Engraved and published by Dr. E. Braun, Annali dell' Instit. Archeol. di Roma, xx. pp. 74—94; and Monum. Ined. v. Tavv. 1—4. I regret that I have been unable to trace back the history of this slab further than the middle of the last century. The present possessors state that it was left to the Serra family by Vincenzo Spinola, their great uncle, who was formerly ambassador at Paris. It was bequeathed to him by his grandmother, one of the Bajano family. The Bajano from whom she had inherited it, was a great collector of antiquities, and the slab used to be in his palace in the Strada Canneto Longo, in the courtyard. This Bajano died about 1750, and the slab cannot be traced further back. I am indebted for these particulars to Mr. Montagu Brown, H. M. consul at Genoa, who has been so obliging as to make special inquiries with a view to ascertaining the pedigree of this slab.

in regular sequence, but are taken from various parts of the series; nor have we any evidence as to the side of the building which they occupied, except in the case of those found by me, which are probably from the eastern side. Those four are evidently by the same artist, and are far superior in preservation to those from the Castle.

Throughout the series the Amazons are represented on foot or on horseback. Their weapons are the battle-axe, or *pelekys*, the bow, and the sword. From the action of several of those on horseback, it is to be presumed that they were represented using spears; but, as no trace of this weapon appears at present on the marble, it may have been painted on the field. On their left arms the Amazons wear the *pelta*. Their dress is generally a *chiton*, reaching to the knees, which is open at the side, so as to leave one thigh or breast uncovered in violent action. Some wear over the *chiton* a *chlamys*, twisted round the arm, and with the ends flying in the wind. On one slab only the figures wear a *chiton* with sleeves, and *anaxyrides*. The feet are mostly naked, but *endromides* or buskins occur on some figures. When the head is covered, the Phrygian cap, or a kind of linen coif, is worn; but many have the hair drawn back and gathered into a top-knot behind. In one instance only a crested helmet is worn.

All the Greeks are on foot; some of them are represented naked, others wear a *chiton*, reaching to the knees, or a *chlamys*, twisted round the arm. Their weapons are the sword and the

javelin; they wear no armour but Argolic bucklers, and helmets, some of which are Corinthian. One figure, who must represent Herakles or Theseus, is armed with a club and wears a lion's skin. Throughout, there is a skilful opposition of nude and draped, of male and female forms. Among the Greek warriors, some are beardless youths; others in the maturity of their strength.

In the composition, the groups and figures are much less intermixed than in the Parthenon and Phigalian friezes, and are arranged so as to balance each other by a peculiar antithesis of oblique parallel lines.[t] The relief is exceedingly salient, the limbs being constantly sculptured in the round: bold foreshortening is not unfrequently used. The outlines are marked with extreme force, a channel being worked in the marble round each figure, and deep undercutting used wherever it would contribute to the effect. The figures seem somewhat wiry, and elongated in their proportions, when seen on the level of the eye. These peculiarities may be easily accounted for, if we suppose this frieze to have occupied the position on the building assigned to it in Mr. Pullan's restoration; for, in that case, it would have been seen from below at a height of about 90 feet.[u]

The composition in this frieze is distinguished by

[t] See the Diagram in Mr. Falkener's Dædalus, p. 169, where there are some valuable remarks on this frieze.

[u] The same scattered composition and elongation of the figures is observable in the frieze of the Choragic Monument of Lysicrates, which was also raised on a lofty basement.

the wonderful animation and energy which pervades the whole. A happy boldness of invention is shown in the incidents which represent the varied fortunes of a combat in which neither side can claim a decisive victory. A consummate technical knowledge is applied throughout to render the expression of each figure and group as intense as possible, and proportions are boldly exaggerated to produce more telling effects. Tried by the standard of the school of Phidias, and viewed simply as a composition in relief, without regard being had to its original architectonic purpose, the frieze may, perhaps, be considered a little strained and overwrought in style; it may be thought that such intensity in the action needs the contrast of forms expressive of repose, such as we see introduced so skilfully in the metopes of the Parthenon and in the Phigalian frieze. We seem to miss, too, in the whole treatment of the subject, that grand Ethical spirit which pervades the art of Phidias, and which is especially noticeable in the groups where a mortal struggle is represented. We have not, as in the metopes of the Parthenon, the highest human heroism contrasted with mere brute passion; but the combatants on both sides seem, in some groups, to be animated by a rage which masters rather than develops the nobler part of their nature.

In short, this composition, if compared with similar subjects, as treated by Phidias, seems less Ethical and more Pathetic. Moreover, in the representations of the Amazons, forms occur which seem rather too voluptuous for such a heroic

type, and we may here detect the first germs of that sensual element, which gained so powerful an ascendancy in the later schools of art, but of which we have no trace in the works of Phidias.

In making these criticisms on the frieze of the Mausoleum, it must not be forgotten that the slabs which we possess do not form a continuous composition, but are, for the most part, fragments of very extended groups, balanced one against the other with extreme subtlety; we must also remember that distance would tone down and harmonize much that seems strained and exaggerated in the composition, as is the case in scene-painting. Considering the perfect taste and keeping shown in every part of the design of the Mausoleum, so far as we know it, and the entire absence of exaggeration and affectation in the sculptures in the round, it is difficult to believe that so important a feature as the frieze of the Order would be designed in a style not in perfect keeping with the rest.

Moreover, we must not lose sight of the fact, that the whole frieze was coloured. From the examination of a number of fragments on their first disinterment, I ascertained that the ground of the relief was ultramarine, the flesh a dun red, and the drapery and armour picked out with colours. The bridles of the horses, as on the frieze of the Parthenon, were of metal, as may be seen by an examination of the horse's heads, several of which are pierced for the attachment of metal. On the slab engraved in Plate X. Upper View, the end of the leaden fastening still remains on the jaw of the

horse.[v] This variety of colour must have greatly contributed to the distinctness and animation of the composition, and, doubtless, was distributed in such proportions as to unite the several groups in one great harmony.

As we know that the four sides of the Mausoleum were decorated with sculpture by four different artists, and as the expression *cælavere*, used by Pliny in reference to their respective works, seems to indicate that they were all employed on friezes, it becomes an interesting matter of inquiry how far, in the reliefs which we possess, the work of different hands may be recognized.

It has been pointed out (*ante*, p. 100) that the four slabs of frieze found by me on the eastern side of the Quadrangle are more probably the work of Scopas than of any one of the other three artists employed. These four slabs are distinguished, not only for their superior preservation, but also for the spirit of the composition and the mastery of execution. Three of them form a continuous subject. On the right of this composition (Plate X. Upper View) the principal figure is a mounted Amazon, whose horse is rearing, as if about to strike with his forelegs a Greek warrior in front of him. The rider has turned round so as to face the horse's tail, and is drawing her bow, after the Parthian fashion, at an enemy behind her.

The Greek in front of her is engaged with an Amazon on foot, who forms the last figure on the

[v] On the companion slab (Plate IX. Upper View), a copper nail still remains in the marble.

right of the slab. She is pressing eagerly forward, and, laying hold of her adversary's shield with her left hand, has her right drawn back to deal him a blow with a battle-axe. The Greek has his body thrown very far back, resting his weight on the right knee, and trying to cover himself with his buckler; his right hand has been broken off, but may have held a spear, as with a sword he could not reach his adversary.

On the next slab (Plate X. Lower View) we have two very fine groups. On the right has been a prostrate Amazon, whom a bearded Greek is stooping forward to despatch. His brow, over which the peak of a Corinthian helmet casts a deep shadow, frowns mercilessly on his fallen antagonist. The expression of his face, which is the most perfect in condition in the whole frieze, is very like that of one of the warriors in the celebrated bronzes of Siris. His left arm, seen against the concave surface of his shield, is a fine example of modelling. On the first discovery of this slab, red colour was very distinct inside this buckler, where traces of it may still be seen.

On the left of this group is another, forming a singular contrast to it. An Amazon whose open *chiton*, confined only at the girdle, leaves the whole left side uncovered, uplifts with both hands her battle-axe, to deal a blow at a Greek warrior, who advances to attack her, and whose right hand must have held a sword. This group is one of the finest of the whole frieze; the figure of the Amazon is admirably modelled, and her attitude is remarkable

for the boldness and novelty of the conception. On the next slab (Plate IX. Lower View) an Amazon is about to strike down a youthful warrior, who, already wounded, has fallen on his left knee, and, looking up at his adversary with undaunted gaze, prepares to receive the blow on his Argolic buckler. This warrior is a very noble figure; his left leg is a remarkable example of bold foreshortening. At first sight, the left thigh of this figure appears longer than the right, but Mr. Falkener[w] has pointed out that this is an optical deception. On the right of this figure the slab is broken away in the middle of a group; a mounted Amazon is turned to the right: under her horse's feet appears the thigh of a wounded warrior.

The fourth slab (Plate IX.) is a fragment on which is a mounted Amazon, the upper part of whose body has been broken away; but, from the general action of the body, it is probable that she was aiming a spear. In front of her has been the figure of a Greek, of which nothing remains but part of the right thigh and the left leg and foot.[x] It is uncertain whether this slab forms part of the series previously described; it was found near them.

It has been already pointed out that the attitude both of the horse and rider greatly resembles that of the equestrian group in the round already described.

It may be also compared with the mounted

[w] Dædalus, p. 247.

[x] These two fragments have been rejoined since the arrival of the frieze in the Museum, and are not shown in the Plate, which is copied from a photograph taken at Budrum.

Amazon on slab No. 8, of the frieze from the Castle, which I should consider to be by the same hand.

On both these slabs the beauty of the modelling is greatly enhanced by the preservation of the surface, and these two may be considered the finest representations of horses on the frieze.

The composition on the slab No. 8 is continued on No. 7, which also seems by the same hand as the four pieces discovered *in situ*.

Slab 15 may also have been executed by the same sculptor. If we assume, therefore, that the four slabs from the eastern side are the work of Scopas, we possess, perhaps, seven slabs from the hand of this great artist. Nos. 5, 9, 10, 11, 12, and 16, appear to me to be the work of a different sculptor. The treatment seems in places somewhat inferior in execution; but, as has been truly remarked by Dr. Braun, it is hardly possible to judge fairly of works so defaced and discoloured. The slabs now at Genoa, of which the Museum has a cast, Nos. 17, 18, though not inferior in merit to those discovered by me, appear to be the work of a different artist. Perhaps Nos. 13 and 14 may be assigned to the same hand.

In the course of the excavations I collected numerous fragments of this frieze, a large proportion of which consisted of extremities, which, being in most cases sculptured nearly in the round, must have been broken off in the first fall. Several large fragments from slabs were found in the north-western angle of the Quadrangle, on one of which is an Amazon kneeling, and girt with a sword. Much labour has been bestowed on the examination

of these fragments, with a view to re-joining them, but with less success than in the case of the statues. These remains, however, from the excellent condition of the surface generally, furnish that evidence as to the original execution of the sculpture, which, in the case of the slabs from the Castle, has to be supplied, for the most part, from slight indications.

It is interesting to observe how uniformly the same masterly style of modelling is maintained throughout in these fragments, especially in the arms and legs. They furnish too additional proof that the entire frieze related to the same subject; for the fragments are all from figures of Greeks and Amazons, or from horses, and the muscles are always in violent action. The marble employed throughout this frieze is white with bluish veins, and is of a coarse grain.

I now come to the description of the two other friezes.

It has been already noticed that among the thirteen slabs from the Castle was one slightly differing in scale from the frieze of the order, and with a different moulding at the foot.

On this slab are three figures and part of a horse. On the left, a male figure, resembling Herakles in type, stands in a warlike attitude, looking to the left; his right arm is drawn back to hurl some weapon, probably a spear, at an enemy, who must have been represented on the following slab. Behind him, in the centre of the scene, a female figure, clad in a *chiton* and *peplos*, flies to the right, stretching out at the same time her right hand

towards Herakles, in the direction contrary to her flight. Her face is broken off; but, from the action of the neck, it seems to have been represented looking back. The flutter of her drapery, and the action of her extended right hand, indicate fear. On the left is a youthful male figure, bounding forward with rapid strides. Over his left shoulder he carries a staff of some kind, which appears too thick for a spear, and more resembles a *thyrsus*, though there are no positive indications what it is. In front of this figure is seen the hind-quarter of a horse moving also to the right. The subject on this slab does not appear to have any relation to that of the other slabs from the Castle, though it has been described as a scene from an Amazonomachia.[y]

In the course of the excavations on the site several more fragments of this frieze were found; on one of which the subject is a youthful warrior attacking a Centaur. An examination of the other fragments leads me to the conclusion that the whole of this frieze related to a Centauromachia, to which subject the slab first described must consequently be referred. The female figure in the scene is doubtless flying from a Centaur, whom a Lapith, her rescuer, is in the act of attacking. The relief in this frieze is very bold. All the fragments of it found in the excavations are much corroded, as if they had been exposed to weather, and are executed in a coarse white marble. The joint, like that of the frieze of the order, is a fine one. It may be doubted, therefore, whether this frieze was

[y] Braun, Annali dell' Inst. Arch. Rom. xxii. pp. 297-8.

ever inserted in the walls of the *cella*, as Mr. Pullan supposes. On the other hand, its scale seems too small for the *podium*.

It has been thought[z] that the slabs representing a chariot-race formed part of this frieze, but, by recent examination of the fragments in question, I have ascertained that these slabs, and a number of other fragments, belong to a distinct frieze.

The differences between the two friezes may be stated as follows.

The relief in the chariot frieze differs from that of any of the other sculptures in the Mausoleum. The heads and extremities of the figures are not detached as in the frieze of the order, but sculptured on the ground in relief, high or low, as the effect may require. In some of the limbs, the treatment is very flat, as in the frieze of the Parthenon. Thus the relief seems to have been an example of what has been termed mezzo-rilievo.[a] This highly-wrought execution accords with the material of this frieze, which is a much finer and whiter marble than that employed in the other friezes. The difference in the quality of the material enabled me to identify the pieces which belong to this frieze among the general mass of fragments. They amount to nearly 100. The thickness of the slab is not 1′, as in the frieze of the order, but varies from 7″ to 4″. The back is always hammer-dressed, not wrought in alternate courses like the frieze of the order. The joint

[z] See *ante*, p. 177.

[a] See Sir C. Eastlake, Contributions to the Literature of the Fine Arts, 1848, p. 117.

between the slabs wants the final polish; which circumstance is an additional proof that this frieze was never intended to be exposed to the weather. On one of the pieces, the blue colour of the ground may still be traced under an aqueous deposit. The most interesting fragment of this frieze represents a female charioteer standing in a *quadriga*, of which half the wheel only has been preserved. She wears a *chiton* reaching to the feet, and girt at the waist. Her body is thrown forward, and her countenance and whole attitude are expressive of the eagerness of the contest. The features, which are beautifully sculptured, have an anxious look.

The chariot-race frieze has a flat ogee moulding at the foot, on the under side of which the enriched ornament, usual in this moulding, has been painted. Faint traces of the blue ground and of the leaves of this ornament may be seen. This moulding, so far as I know, occurs nowhere else on the building. It was evidently intended to have been seen from below.

The depth of the chariot frieze, exclusive of the moulding at the foot, is 2′ 9½″; while that of the Centaur frieze is only 2′ 4½″. The whole depth of the slabs in both friezes is the same, 2′ 10½″; the difference being, that in the chariot frieze the figures are taller, and the moulding at the foot shallower.

It has been already noticed, *ante*, p. 177, that a few fragments of reliefs in panels have been found, which Mr. Pullan has inserted, conjecturally, in the walls of the *cella*.

The only one of these fragments on which the subject can be at all made out, is one on which are

the remains of a group representing two male figures, one of whom has thrown the other down on a rock, and appears to be following up his advantage. Of the fallen figure, all that remains is the left leg, thigh, and hip: of his adversary, only the right leg and left foot; but the subject of this group may easily be recognized. There can hardly be a doubt, from the relative position of the two figures, that the group originally represented Theseus killing the robber Skiron.[b] The present length of this group is 23″; and unless there was a third figure behind Skiron, the width of the panel did not probably much exceed this dimension.

The remains of sculpture from the Mausoleum having been described in detail, and classified, and the relation of these sculptural decorations to the structure having been determined, so far as was possible, it becomes an interesting subject of inquiry, how far, from the evidence of these few fragments of the works of Scopas and his fellow-artists, we may infer the general motive and meaning of the great design on which they were severally employed. Though it is, indeed, possible that each of the five sculptors employed, selected his subject independently of the rest, it is far more analogous to the general spirit of Greek art to suppose that one motive pervaded the whole of the sculptural decorations of the Mausoleum, as we know to have been the case in other celebrated designs, such as

[b] See the representation of this subject on a cup in the British Museum.—Catalogue of Greek and Etruscan Vases in Brit. Mus. 1851, No. 824*.

that of the Parthenon. What this motive was, cannot now be ascertained. If we possessed the prize compositions recited by celebrated poets and rhetoricians at the obsequies of Mausolus, we might form some guess as to the theme likely to be selected by the sculptors employed on the decoration of his tomb. One of these prize compositions we know to have been a tragedy by Theodektes, entitled "Mausolus," which probably commemorated the fortunes of some mythic or historical ancestor of the Carian prince, from whom he had inherited his name.

While it may be presumed *a priori*, that Scopas and his fellow-artists had specially in view the celebration of the exploits and glories of the reign of Mausolus, it by no means follows that direct historical representation was the principal feature in their design. From the evidence afforded by the remains of their sculptures it is rather to be inferred that the mythical and the historical were combined in one general composition. It has been shown that the subjects of two out of the three friezes are certainly mythical, and this was probably the case with the reliefs in panels. The chariot-race, which forms the subject of the third frieze, may possibly represent an actual contest at the obsequies of Mausolus, but it is more probable that it has reference to some myth connected, however remotely, with the tradition of his dynasty. With reference to the main feature in the whole design, the *quadriga* which crowned the pyramid, it has been already suggested that the chariot-group probably repre-

sented Mausolus himself, conducted to heaven by the deity whose special protection he had enjoyed during life, and who would act as charioteer. It is thus that on a number of fictile vases the introduction of Herakles to Olympus is symbolized by representing the hero in a chariot, driven by his tutelary goddess Athene, and accompanied by Hermes and other Deities.[c] Among such scenes may be especially noted a vase, published by Gerhard,[d] in which Herakles stands in a *quadriga* driven by Athene, below which the *rogus* of the hero is represented in flames.

It is probable that the *quadriga* came to be regarded in ancient art as the symbol of *apotheosis*, from its use in the most solemn processions, religious or triumphal. Thus, in the great pageant which took place at Alexandria on the accession of Ptolemy Philadelphus, the statue of the deified Alexander was introduced into the procession of Divinities, mounted on a car drawn by elephants,[e] and placed between statues of Athene and Nike. So again, among the honours decreed by the Senate

[c] Compare the account of the stratagem by which Pisistratus returned to Athens after his exile, accompanied by a female dressed up as Athene, Herod. i. 60. It may be inferred from this account, though Herodotus does not directly state so, that Pisistratus entered the city in the same chariot with the pretended Athene, and that she acted as his charioteer.

[d] Ant. Bildwerke, i. Taf. 31. Compare the vase published Annali dell' Instit. Archeol. Rom. xix. p. 274. Monum. Ined. iv. Tav. xli.

[e] Callixen. Rhod. apud C. Mueller, Fragmenta Historic. Græc. iii. p. 64 :—*καὶ ἐπὶ πᾶσιν Ἀλεξάνδρου, ὃς ἐφ' ἅρματος ἐλεφάντων ἀληθινῶν ἐφέρετο χρυσοῦς, Νίκην καὶ Ἀθηνᾶν ἐξ ἑκατέρου μέρους ἔχων.*

to Augustus and Livia after their deaths, was a *quadriga* of elephants in the procession of the Circensian games. This distinction seems thenceforth to have formed a part of the Roman *Consecratio*.[f]

On the coins of Antoninus Pius and subsequent emperors may be seen a figure in a *quadriga* placed on the top of the funeral pile, *rogus*, which, being built in stages, reminds us of the pyramid of the Mausoleum.

In the account of the *apotheosis*[g] of Pertinax, given by Dion Cassius, an eye-witness of this ceremony, it appears that the chariot used by that emperor in his lifetime was placed on the summit of the funeral pile, and consumed with the bier; and, if such a custom was borrowed from royal obsequies among the Greeks, we may have in the pyramid of the Mausoleum surmounted by its *quadriga*, a representation of the *rogus* of the Carian prince, as well as a symbol of his translation to the realms of heroes. I am not aware, however, of any certain evidence[h] on this point.

[f] Suetonius in Claud. c. 11 :—"Aviæ Liviæ divinos honores, et Circensi pompa currum elephantorum Augustino similem decernendum curavit."—Cf. Dion Cassius, lxxiv. 4.

[g] Dion Cassius, lxxiv. 5 : — ἐπεσκεύαστο δὲ ἐν αὐτῷ πυρὰ πυργοειδὴς, τριῴβολος, ἐλέφαντι καὶ χρυσῷ μετὰ ἀνδριάντων τινῶν κεκοσμημένη· καὶ ἐπ' αὐτῆς τῆς ἄκρας ἅρμα ἐπίχρυσον, ὅπερ ὁ Περτίναξ ἤλαυνεν. ἐς οὖν ταύτην τὰ ἐντάφια ἐνεβλήθη, καὶ ἡ κλίνη ἐνετέθη.

[h] On a Diptych in the British Museum, engraved, Millin, Gal. Mythol. ccliv. 878, we have a representation of an Apotheosis, probably of Romulus II., in three scenes. Below is the emperor in a *thensa* drawn by elephants; beyond which is the *rogus* surmounted by a *quadriga*. Above is a group representing the reception of the deified emperor among the gods.

With reference to the other statues, of which remains were found on the site of the Mausoleum, it may be inferred, from the character of the heads, and from the general proportions and costume of the figures, that they represent, for the most part, mortals or heroes, rather than deities. This is rendered the more probable by the absence of all attributes such as distinguished the gods. Many of these statues may, therefore, have been portraits of mythical or real ancestors of Mausolus.

The combat between Greeks and Amazons, represented on the principal frieze, was a favourite subject among the Greek artists, especially those of the Athenian schools. Why it formed so prominent a feature in the design of the Mausoleum, is a question on which it would be hazardous to advance any very decided opinion. It may, however, be worth while here to remark, that, from the presence of Herakles in one of the scenes on the frieze (slab 9), it may be assumed that the contest represented, is that in which he repulsed the Amazons at the river Thermodon, and slew their queen Hippolyte. There is, as I have already pointed out, *ante*, p. 15, a curious connection between this exploit and the early history of Caria. The battle-axe which Herakles won in battle from Hippolyte, and which subsequently passed into the hands of the Lydian kings, was finally taken in battle by the Carians, and dedicated in the temple of Zeus, at Labranda.

The constant occurrence of this battle-axe as a type of Carian coins, and the fact of its dedication

in the temple of their chief Carian deity, show that the myth which it commemorated was one regarded as of national importance. It may be that the exploits of Herakles in Asia Minor were chosen as a type of the prowess of Mausolus, and that his military successes were thus indirectly celebrated.[1]

Though we may thus seek to account for the choice of the Amazonomachia as the subject of the principal frieze, this conjecture will not serve to explain why the Centauromachia formed the subject of another frieze; we can only state the fact that here, as on the temple of Apollo Epicurius at Phigalia, and on several works of Phidias, the myth of the Amazons was associated with that of the Centaurs. Why these subjects were thus combined by the great sculptors of the Athenian school, we do not know. Perhaps in the Centaur frieze, and the reliefs in panels, the exploits of Theseus were commemorated, and in the frieze of the order those of Herakles alone, or in combination with Theseus.

It will have been seen by the foregoing remarks, that the fragments of the sculptured decorations of the Mausoleum, which have in so singular a manner been rescued from destruction, are but *disjecti membra poetæ;* and that it would be as difficult to judge fairly of the original design from such imperfect data, as it would be for a literary critic to appreciate the plot of an ancient drama, only known to him through a few isolated passages preserved in Athenæus.

As, however, in the absence of more complete

[1] This is the conjecture of Dr. E. Braun, Annali dell' Inst. Archeol. di Roma, xxii. p. 329.

evidence, the historian of ancient literature is forced to study fragments with the hope that, in the alembic of a subtle criticism, he may distil from them something like the spirit of the poem of which they once formed a part, so, even from these poor shreds and remnants of the works of Scopas and his brethren, we may extract some notions as to the characteristics of the school of sculpture which they represent, and so contribute the materials for a new chapter in the history of Greek Art.

In the foregoing description I have offered a few critical remarks on the sculptures of the Mausoleum in detail, pointing out certain differences which showed them to be the work of more than one artist. I shall now inquire how far, as the joint production of several contemporary artists animated by the same motive, they may be said to exhibit unity of style, and in what this unity seems to consist.

To recognize in a number of contemporary monuments the same style, is far easier than to define in words a resemblance so recognized, and which, indeed, we discover primarily through a kind of feeling or instinct rather than by any conscious logical process. In this, as in many other matters, we must approach the definition sought for rather through negative than positive statements; we must begin by pointing out what the style of these sculptures is not like, in order that we may, if possible, be able to express in words what it is like.

Those who are most deeply conversant with ancient art will, I think, bear me out in the assertion that these sculptures, while they produce an im-

pression on the mind very different from that which we receive from the contemplation of the Elgin marbles, are at the same time so distinct and original in character, that the more we study them, the more we are struck with the fact, how little they remind us of what may be seen in other Museums. In the sculptures of the Mausoleum there is nothing conventional. We can scarcely recognize in them a single repetition or adaptation of those favourite types and motives which are for ever recurring in the extant monuments of ancient art, especially at Rome.

The difference, on the other hand, between these sculptures and those of the Parthenon may be thus stated.

The qualities which distinguish the works of Phidias from those of all other artists are Sublimity and Repose. In the sculptures of the Parthenon, form seems the result of a generalization so profound, that in contemplating the pedimental figures we almost forget that they are the product of human thought, and executed by mortal hands; they seem, as has been said of some of the works of Michael Angelo, to reveal to us the very archetypes of form, such as we might conceive to dwell in the mind of a divine creator.

The impression which we receive from the sculptures of the Mausoleum is less elevating. We are surprised and delighted with the richness and variety of invention shown in the composition; our hearts are stirred within us by the liveliness and truth of the action represented; but the admiration thus called

forth does not so absorb and overpower our minds as to make us lose sight of the artist in the transcendant excellence of his work. The sculptures of the Mausoleum, in a word, though perhaps more generally attractive than the works of Phidias, affect the mind less deeply, and exhibit an inferior ideal of form, the necessary result of a less exalted subject-matter. On the other hand, if we compare these same sculptures with other celebrated works which have been preserved to us from antiquity, we shall find, perhaps, nowhere such a combination of rare qualities; such energy in the action; such earnest pathos and majesty in the expression; such mastery of execution; such directness and singleness of aim in the artist, freed from all affectation and mannerism. If it were possible to sum up all these qualities in a single epithet, I would say that it is the predominance of the *Dramatic* element which forms the main characteristic of the sculptures of the Mausoleum, and which, if we view them without reference to the works of Phidias, must be accounted their distinctive excellence.

It is interesting to observe that the character of these sculptures, so far as we can ascertain it from the study of the few fragments which we possess, in no way contradicts our preconceived notions of the condition of Greek art at the time when these works were produced.

It may be considered as historically certain that the artists employed by Artemisia represent the most eminent masters of the later Athenian school, just as Phidias and Myron represent the earlier

Athenian school; indeed, if we believe Vitruvius[j] rather than Pliny, Praxiteles himself worked with Scopas on the *Pteron*. Our notions of this later school are derived, partly from the testimony of ancient critics respecting Scopas and Praxiteles, and Leochares, and partly from such inferences as to the scope and character of their most celebrated works as may be drawn from the titles of the works themselves, and from the evidence of monuments still extant, which there is reasonable ground for believing to be copies from those great originals.

After duly considering all this evidence, the best modern critics are agreed in characterizing the art of the later Athenian school as Pathetic, in contradistinction to the art of Phidias and his contemporaries, which, to borrow the epithet applied by Aristotle to Polygnotus, may be considered as pre-eminently Ethical.

The distinction implied by these epithets is very clearly marked in ancient philosophy. By ἦθος was meant those fixed and habitual principles of action, which we call, generally, "the character;" by πάθη, those emotions of the soul which we term passions, and which, in relation to the ἦθος, may be considered as transient conditions. Praxiteles, according to Diodorus,[k] "excelled in expressing in marble the passions of the soul." Scopas, in his celebrated

[j] De Architect. vii. Præfat.:—"Namque singulis frontibus singuli artifices sumpserunt certatim partes ad ornandum et probandum, Leochares, Bryaxis, Scopas, Praxiteles, nonnulli etiam putant Timotheum."

[k] Diodorus, xxvi. 1, p. 512, Wessel.

work, the Bacche Chimairophonos, seems to have represented the utmost intensity of orgiastic phrenzy.[1] The original group of Niobe and her children must certainly have been a work of the highest pathos; and, if we are to believe Pliny, it was a matter of doubt among the critics of his day, whether this was from the hand of Scopas or Praxiteles.

It is to be presumed, therefore, that these two great masters had much in common in their style. Whether Scopas or Praxiteles was the author of the group of Niobe and her children, the statues now at Florence are so coarsely executed that we can hardly judge of the style of the original from which these copies were made, evidently under Roman influence.

There is, however, in the Vatican, a draped torso of a Niobid,[m] very superior in character to any of those. It is singular that, after looking over most of the Museums in Europe, with a view to the discovery of some work similar in style to the sculpture of the Mausoleum, this torso is the only example in which I have detected such resemblance. The drapery in this figure is very like in character to that of the statues from the Mausoleum; but the proportions of the lower limbs seem too short, and the feet are coarsely executed.

I should, therefore, be disposed to think this

[1] Callistratus, Stat. ii. Brunn, Geschichte d. Griechischen Kuenstler, i. pp. 326—335.

[m] In the Museo Chiaramonti, engraved, Clarac, Musée de Sculpture, Pl. 577, No. 1245.

work a copy from one of the figures in the group mentioned by Pliny, though it has been thought by good judges to be an original work.[n]

Several other extant monuments have been thought to be repetitions of celebrated works of Scopas. Thus, in the Vatican, a copy may be seen of the Apollo, dedicated by Augustus after the battle of Actium in the Palatine temple at Rome.[o] So again, in the Bacche Chimairophonos, to which allusion has already been made, we may have the original from which several extant figures in relief have been taken.[p]

Of the later Athenian school, the sculptor who, in the estimation of Pliny, appears to rank next to Scopas and Praxiteles, is Leochares, whose Ganymedes was celebrated for tenderness of expression. It is probable that several repetitions of this subject exist, all, probably, originally derived from the composition so praised by Pliny.[q]

There is in the British Museum a remarkable work in relief, representing Leda and the Swan, which has also been ascribed to Leochares. The style of sculpture is very free and masterly, and

[n] The torso of the Ilioneus at Munich (see K. O. Mueller, Denkmaeler d. A. Kunst, i. Taf. 34, fig. E) is generally considered to be a fragment from the same composition, and to present the characteristics of a work of the best period of Greek art. I have not had an opportunity of examining this torso since the discovery of the sculptures of the Mausoleum; but I am not aware that it presents any resemblance in style to any of these.

[o] K. O. Mueller, Denkmaeler d. A. Kunst, i. Taf. 32, fig. 141*a*.

[p] See Marbles in the British Museum, X. Pl. 35, p. 81, Note [6].

[q] See Otto Jahn, Archaeologische Beitraege,—Berlin, 1847, pp. 12—41.

not unworthy of one of the sculptors of the Mausoleum.[r]

Of Bryaxis and Timotheus we know little more than the mere names. Pythios might be placed in the same category, were it not that the discovery of the horses from the *quadriga* enables us to form a definite notion of his individual merits as a sculptor. If the figure which I call Mausolus really stood in the *quadriga*, as I have throughout assumed, then we have a more exact knowledge of the art of Pythios than perhaps of any other ancient sculptor of note, with the exception of Phidias.

The head of this figure may be considered as the earliest extant example of that ideal kind of portrait by which the school of Lysippus sought to impart something of divinity to the likeness of mortal kings; and, if we bear this in mind, it is instructive to compare this head with that of Alexander the Great, as it appears on the coins of Lysimachus, and in several repetitions in marble.

The ideal portraits of this school may be regarded as the last great effort of Greek art; but, in the attempt to invest living personages with the characteristics of divinity, sculpture itself fell, because it forgot its earlier and nobler aim, and allowed itself to be diverted to secular purposes. Hence, if we assume that the statue of Mausolus was the crowning feature in the whole composition to which it belonged, this work has a peculiar significance in our eyes. In that case, we must regard the Mau-

[r] Jahn, Archaelogische Beitraege, pp. 6, 7.

soleum as a cardinal point in the history of ancient sculpture, marking the commencement of that great innovation which was consummated by the conquests of Alexander, and forming the boundary-line of two schools—the later Athenian or Pathetic school, and the school of Lysippus, which we may perhaps call the Realistic school.

In connection with the general inquiry as to the character of the sculptures with which the exterior of the Mausoleum was adorned, it would be a matter of much interest could we ascertain any facts respecting the internal decoration of the tomb; and, still more, respecting the objects which were found in the sepulchral chambers when they were plundered by the Knights. Though we have scarcely any direct evidence on this point, it may be inferred, from the analogy of similar tombs in antiquity, that these chambers contained a rich treasure of armour, dresses, and personal ornament.

It may be worth while to cite here, in illustration, the description of two celebrated tombs, both of Asiatic princes. According to Aristobulus, as quoted by Arrian,[s] Cyrus, the founder of the Persian dynasty, was buried in a marble chamber built on a square base, and approached by a very narrow and winding entrance. The body of the king was placed in a gold coffin, by the side of which was a couch, with feet of wrought gold, strewn upon which were carpets, coverlets, and robes of many colours, ornamented with rich Babylonian embroidery. The chamber also contained scimitars, *torques* (στρεπτοί),

[s] Exped. Alex. vi. 29.

and earrings of gold and precious stones: a table was spread for the banquet. In the Scythian tomb near Kertsch, called the Koul Oba,[t] there was found in the upper chamber the skeleton of a king, placed in a large wooden coffin. This was divided into two compartments; in one of which were found the remains of an iron sword, a whip, and a bow-case, all mounted in gold or *electrum*. On either side of the body was placed a greave of bronze or silver gilt, and on the head two hoops of gold, which had probably formed part of a *cidaris*. Round the neck of the deceased was a *torques*, and his arms were encircled by armlets and bracelets of solid gold. In front of this coffin was a female skeleton, which, from the magnificence of the ornaments, was evidently that of a queen. In the same chamber were deposited the skeleton of a horse and of a man near him, probably the groom to the king; some beautiful silver and bronze vessels, such as the Greeks used in their banquets; and some large *diotæ*, or wine-jars. Two of the bronze vessels were full of sheep's bones; and by the stamp on one of the handles of the *diotæ*, it may be inferred they contained wine from Thasos. There can hardly be a doubt that stores of food were placed in the tomb, and that the silver and bronze vessels represented the garniture of the royal table: we may thus explain the expression of Aristobulus in his description of the tomb of Cyrus—τράπεζα ἔκειτο. In the wall

[t] For the description of the contents of this tomb, see Antiquités du Bosphore Cimmérien,—St. Pétersbourg, 1854, fol. i. pp. xix.—xxvii.

of the Koul Oba were five large nails, below which were found quantities of bracteate gold ornaments, which had evidently fallen from the rich garments once suspended from the nails. It has been already remarked, that the *paillettes d'or*, mentioned by Guichard, must have been ornaments of this kind.

The above account of the discoveries of the interior of the Koul Oba tallies very remarkably with the description which Aristobulus gives of the tomb of Cyrus. In both cases, it is evident that ample stores of arms, garments, and provisions were laid up in the tomb, for the use, it is to be presumed, of the deceased in another state of existence.[u] The horse of the royal personage interred in the Koul Oba was buried with him for the same motive, and in accordance with a custom which prevailed extensively not only among the ancient Scythians, but also among our Celtic and Scandinavian ancestors. The motive of such a practice may be easily understood if we bear in mind the popular conception of a future state entertained in antiquity. In their Elysium, the pursuits and pleasures, and all the outward circumstances of their previous life, were renewed in a shadowy form.

> Quæ gratia currûm,
> Armorumque fuit vivis, quæ cura nitentes
> Pascere equos, eadem sequitur tellure repostos.[v]

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[u] The bronze vessels found in the Regulini-Galassi tomb near Vulci (see Dennis, Cities in Etruria, ii. pp. 45, 52), were, probably, part of the furniture of a τράπεζα. The quantity and beauty of the ornaments found there make it probable that this tomb also was the burial-place of some royal personage.

[v] Virgil, Æneid, vi. 654; cf. Servius in Virgil. v. 95.

By comparing the two descriptions which have just been cited, we are enabled to form some sort of conception of the treasures which the Sepulchral Chamber of Mausolus probably contained, when first opened by the Knights. No record of these treasures exists, except the brief allusion in the narrative of Guichard. A few objects, however, were found in the course of excavating the site of the Mausoleum, which may possibly be remnants of these precious κειμήλια. These objects are:—

1. The corner of the lid of a white marble *soros*, mentioned p. 114 (see note [r], ibid.) This terminates at one end in a fine joint, showing that the lid was made of several pieces of marble. The lower face of the marble has evidently been adjusted with great nicety to the *soros*, which it covered. The letter A is cut upon this lower face: throughout the Mausoleum, the relative position of the several mouldings and other subordinate members of the Order was, in like manner, indicated by letters.

The chiselling of the surface of this marble lid is so like that of the architectural marbles found *in situ*, that I have no hesitation in ascribing it to the period of the Mausoleum. With it was found a fragment similarly chiselled, which probably belongs to the same *soros*.

2. The marble casket described p. 113, though this may have stood at the feet of a statue.

3. The large *phialæ* found near it (see p. 112), were probably used in the sepulchral rites; but the inside surface is so much honeycombed by drip, that it is hardly possible that they could have been

originally deposited in the same chamber as the fragment of *soros*, which is as fresh as when it left the hand of the mason.

Actual size.

4. In the soil of the platform were found two pendants from glass necklaces represented in the accompanying cuts. One of these is in the form of an acorn. These may have been part of the spoils of the tomb.

Actual size.

5. The large sardonyx and the piece of jade, described pp. 150-1, were found in a branch of the Upper Gallery in the Vakuf field, some yards to the west of the Quadrangle. If these objects were part of the plunder from the tomb, they must have been thrown into the well in the Vakuf field, and so drifted gradually into the soil of the gallery north of it.

It is, however, more probable that these objects lodged at this place after having been brought down by the rush of water from higher ground.

CHAPTER IX.

TOPOGRAPHY OF HALICARNASSUS.

Description of Halicarnassus by Vitruvius. Its correspondence with the actual site. Existing remains of the ancient walls. The Myndus Gate. The tower on the Theatre Hill. Temple of Mars. *Agora.* The closed port. The palace of Mausolus; its probable position. The fortress of Salmacis. The fountain Salmacis, and Temple of Venus and Mercury. Citadel in the island now occupied by the Castle of St. Peter. Promontory Zephyrium. Doric colonnade near the Temple of Mars, perhaps the *stoa* of Ptolemy mentioned in an inscription. Temple of Demeter and Persephone. Tombs on the Theatre Hill. Extra-mural cemeteries at Kislalik,—on the road to Myndus, and elsewhere. Reservoirs and aqueducts. River mentioned by Scylax, not now to be found.

BEFORE proceeding to give an account of the other excavations carried on at Budrum, it may be as well to describe generally the plan of the ancient city, and to note the chief physical features of the site, and such points in the topography as have been ascertained by recent research. It has been stated, *ante*, p. 39, that Vitruvius compares the form of the site to that of a theatre. The passage in which this comparison occurs is remarkable for a graphic distinctness, rare in the writers of antiquity when they attempt topographical description.

It is as follows:—"Mausolus, perceiving that

Halicarnassus was a place naturally fortified, favourable for trade, and with a convenient harbour, made it his royal residence. As the form of the site was curved like a theatre, on the lowest ground near the port was placed the *forum*. Along the curve, about half-way up its height, was made a broad street: as it were, a *præcinctio*. In the centre of this street stood the Mausoleum, constructed with such marvellous works, that it is considered one of the seven wonders of the world. In the centre of the citadel above was the Temple of Mars, containing a colossal statue, of the kind called ἀκρόλιθοι, made by the illustrious hand of Leochares, or (according to others) of Timotheus. On the summit of the right hand extremity of the curve was the Temple of Venus and Mercury, close to the fountain Salmacis.—Now, in like manner as on the right hand was this Temple of Venus and Mercury, and the above-named fountain: so on the left horn, or extremity of the curve, stood the Royal Palace, which king Mausolus placed so as to suit his own designs: for from it can be seen, on the right hand, the *forum*, the harbour, and the whole circuit of the wall; on the left, a secret port, so concealed under the walls, that no one could spy or ascertain what was going on there; that the king from his own palace might, without the knowledge of any one, direct all that was necessary for his fleet and army."[a]

[a] Cum enim—animadvertisset Halicarnasso locum naturaliter esse munitum, emporiumque idoneum, portum utilem, ibi sibi domum constituit. Is autem locus est theatri curvaturæ similis. Itaque

On comparing this description with the Plan, Plate I., it will be seen that the shore of the harbour bends round in a curve, terminating in two distinct horns; on one of which stands the arsenal, on the other, the Castle of St. Peter. Around this curved shore the area of the ancient city is marked out very distinctly by its walls, which may still be traced in unbroken continuity all round, except where they approach the sea-shore on the eastern side. It has been already remarked that the lines of these fortifications have been planned with great judgment in reference to the natural capability of the ground for defence; and here, as in other Greek cities, the apparent irregularity in the general outline has been caused by

in imo secundum portum forum est constitutum. Per mediam autem altitudinis curvaturam, præcinctionemque platea ampla latitudine facta, in qua media Mausoleum ita egregiis operibus est factum, ut in septem spectaculis nominetur. In summa arce media Martis fanum habens statuam colossi, quam *ἀκρόλιθον* nominant, nobili manu Leocharis factam: hanc autem statuam alii Leocharis, alii Timothei putant esse. In cornu autem summo dextro Veneris et Mercurii fanum ad ipsum Salmacidis fontem.—Quemadmodum enim in dextra parte fanum est Veneris et fons supra scriptus, ita in sinistro cornu regia domus, quam rex Mausolus ad suam rationem collocavit. Conspicitur enim ex ea ad dextram partem, forum et portus, mœniumque tota finitio; sub sinistra, secretus sub mœnibus latens portus, ita ut nemo possit, quid in eo geratur, aspicere nec scire, ut Rex ipse de sua domo, remigibus et militibus sine ullo sciente, quæ opus essent, imperaret. Ed. *Marin. Rom.*, 1836, ii. 8. The *præcinctio*, or *διάζωμα*, was the space between the *cunei*. In the Greek theatre there were generally two. This would be very well represented by the *platea*, or *wide street*, in which the Mausoleum stood. I have adopted in the text the ingenious emendation of "mœnibus" for "montibus," suggested by Ross, *Reisen, Halle*, 1852, iv. p. 38.

the endeavour to turn to the best account every point of vantage-ground.

There seems no reason to doubt that the plan of these fortifications was designed by Mausolus, though, as Arrian states that Alexander razed Halicarnassus to the ground,[b] it is possible that the walls themselves may be the work of a later period. The greater part of the masonry is polygonal, except on the west side, where isodomous masonry occurs. The materials employed are trachyte, limestone, and tufaceous stone. The gate on the west side, where the ancient road from Myndus entered the city, must have been one of the weakest parts of the line of defence, from the lowness of the level here. Hence this gate has been fortified with three large towers, still standing: one of which is set obliquely to the wall, for the purpose of more effectually commanding the approach (see Plate LXXIII.) It was on this side that Alexander sought to find a weak place in the wall, and here he probably directed his real attack, while he threatened the opposite side.

Passing from this gate in a north-eastern direction the wall turns at an obtuse angle on the side of a conical hill,[c] on the summit of which it is carried round a platform, so as to form a small citadel. On this platform are the foundations of a building, running 35′ from east to west, by 27′ from north to south, which Ross supposed to be the Temple of Mars, but the foundations are more like

[b] i. 23. Τὴν πόλιν εἰς ἔδαφος κατασκάψας.

[c] This hill has been already noticed, *ante*, p. 156.

those of a watch-tower than of a temple. Close to this building is a large cistern. From the summit of the conical hill the wall descends into a valley, whence it bends away to the north-east over very rocky and precipitous ground, forming a salient, which seems to be the ἄκρα, or fortress, turned towards Mylasa, mentioned by Arrian.[d] The eastern wall of this salient runs in a southern direction along a lofty ridge, at the foot of which is a deep ravine, and the bed of a winter torrent. Thence, descending to the fertile level near the harbour, the line of wall must have been continued to the shore to the east of the Greek quarter. Nearly all trace of it here is lost, except at the spot marked "Large Blocks" in the Plan; and, perhaps, near the church of Hagios Nikolas, where "massive foundations" still remain.

It is probable that this part of the wall suffered much in the siege by Alexander, and in subsequent sieges, as, being the key to the isthmus, it would be a special object of attack; it has probably contributed much material to the building of the castle, and, from its proximity to the harbour, many stones from it may have been carried away in vessels.

It has been already shown that the actual site of the Mausoleum corresponds exactly with the position assigned to it by Vitruvius, that is to say, "the centre of the curve, half-way up the heights."

[d] The approach to this part of the wall being very difficult of access, was probably less carefully guarded by the besieged. Arrian (i. 21) states that the two Greek soldiers who entered the ἄκρα, were on a vantage-ground when attacked, ἐξ ὑπερδεξίου τοῖς πολεμίοις ἡ ἐπιδρομή, κ. τ. λ., as would be the case in this part of the walls.

Above the Mausoleum stood the temple of Mars, in the centre of the fortified heights which overlooked the city. It will be seen by reference to Plates I. and XLIII. that nearly north of the Mausoleum is a very large platform, supported by a massive terrace-wall, within the precinct of which are the foundations of an Ionic temple, which has evidently been of considerable size and sumptuous character. Excavations on this site convinced me that former travellers had not erred in placing the temple of Mars here. On the shore below the Mausoleum, according to Vitruvius, was the *Agora*. This must have extended over ground now occupied by the Konak, Harem, and gardens of Salik Bey (see Plate II.) In this ground, an Ionic base resembling those of the Mausoleum, but only 3′ in diameter, the drum of an Ionic column, of about the same dimension, and many ancient marbles, have been dug up.[e]

[e] In the garden of Salik Bey's harem are some fragments of Ionic columns, pieces of architrave, and slabs of white marble, as if from a temple; also a large sarcophagus of Roman times, ornamented with festoons and masks; also, a piece of egg-and-tongue moulding of a good period, and several altars with festoons and bulls' heads, on one of which is a sepulchral inscription to a certain Diodotos, son of Dionysios.

At the door of Salik Bey's Konak was formerly a cubical base, inscribed with the names of the emperor Tiberius and his son Drusus Cæsar; below, was the name of a sculptor, Archidamus, the son of Nicomachus. See Boeckh, C. I. No. 2,657.

In front of this Konak is an arcade, in one of the piers of which is a block of grey marble, on which is sculptured in relief a shield. This block measures 3′ 8½″ by 2′ 4″ in depth. The diameter of the shield, now broken, has measured about 1′ 9″. Traces of a triglyph appear on the opposite edge of the stone.

The three central points mentioned by Vitruvius having been fixed, we have next to consider the position of the two horns which formed the ends of the curve; of which the one on the right was occupied by the temple of Venus and Mercury, close to the fountain Salmacis; while the royal residence of Mausolus stood on the left horn.

As in this passage Vitruvius speaks of the right and left, without saying whether the spectator has his face turned to the land or the sea, it would be a matter of doubt in which sense his words should be interpreted, were it not that the position of the secret port[f] can be satisfactorily determined, as the foundations of its mole are still visible in the harbour, at the side of the isthmus. This closed port was attached to the arsenal of Mausolus, which must have extended over the lower ground on the peninsula, now occupied by the Greek quarter. The port itself, like the arsenals of Rhodes and Carthage in antiquity, was jealously screened from view by high walls. It was here that the princes of Caria prepared naval and military operations in perfect secrecy, and it was out of this port that Artemisia issued when she surprised the Rhodians by a dexterous manœuvre. (See *ante*, p. 52.) The canal by which

[f] The λιμὴν κλειστός of Scylax of Caryanda (Periplus, 98). Although Budrum had been visited by many travellers, and had been surveyed by Captains Graves and Brock, Captain Spratt was the first to lay down the position of this closed port. It must have been the foundation of the mole half seen under water, which Marulli, "Vite de' Gran. Maestri," Napoli, 1636, p. 389, mistook for the ruins of the Mausoleum.

she crossed the isthmus now probably forms the northern fosse of the castle, into which the sea may have been admitted in antiquity by floodgates. After having stated that the palace of Mausolus was on the left horn of the harbour, Vitruvius adds that it was so placed as to overlook on the left the secret port, while on the right it commanded the *Agora*, the harbour, and the entire circuit of the walls. After a careful study both of the ground and the plan of Halicarnassus, I am unable to select any other site for this palace except that indicated in the Plan; which is a rocky eminence overlooking the isthmus, and on the brow of which the beds of Hellenic foundations have been cut in the rock, apparently for a wall running north and south.

From a lofty building on this eminence it would be possible to overlook the ancient city in the manner described by Vitruvius; so that the secret port should be on the left of the spectator, his face being turned inland towards the north. Captain Spratt places the palace of Mausolus on lower ground, at the foot of this eminence;[g] but a building so placed could hardly be said to be on one of the horns or extremities of the curve of the ancient harbour, and would be on too low a level to command an extensive view. I should have been disposed to place the palace of Mausolus on the rocky extremity of the peninsula, now occupied by the castle, were it not that Vitruvius so distinctly

[g] See his Memoir in the Transactions of Royal Soc. of Lit. Second Series, pp. 1—23, with the chart annexed.

states that it stood on the right of the secret port. The entire disappearance of this royal edifice may be easily accounted for, when we consider its proximity to a part of the city wall which was probably destroyed by Alexander the Great, together with the arsenal. As Vitruvius tells us that tile, faced with stucco, and decorated with Proconnesian marble, was employed in the construction of this palace, it is to be inferred that its ruins would be of a less massive character than those of Greek edifices generally. It is not improbable that they may have been used in the formation of the glacis of the castle.

Of the temple of Venus and Mercury, which adorned the western horn, no vestige remains on the shore opposite to the Peninsula. The most conspicuous feature on this side of the bay is the steep rock of Caplan Calessy,[h] on the summit of which is a platform included in the line of the walls, where Captain Spratt has with much probability placed the fortress of Salmacis. It is to be presumed that this fortress was near the fountain of the same name, which again, according to Vitruvius, was close to the temple of Venus and Mercury; but, after a careful and minute survey of the ground, I have been unable to discover any fountain corresponding with the position assigned to that of Salmacis. Captain Spratt places the temple of Venus and Mercury on a platform a little to the north-east of the rock

[h] This rock is shown in the Upper View, Plate XXXIV.

of Caplan Calessy, and of which two sides are formed by an angle of the city wall. The fountain of Salmacis he places on the shore a little to the south-west of Caplan Calessy, on the spot marked "Fountain" in the Plan, Plate I.

But there is no vestige of a temple on the site where he conjecturally places the temple of Venus, and Vitruvius would hardly have described this edifice as being *ad ipsum Salmacidis fontem*, had the fountain been as distant as that on the shore.[1] This point in the topography of Budrum must, therefore, be considered as yet unsolved.

If we suppose the rock of Caplan Calessy to have been occupied by the fortress of Salmacis, which doubtless formed the Acropolis of the people of the same name, we have then no difficulty in understanding Arrian's account of the taking of Halicarnassus by Alexander the Great.

He entered the city in the night. At daybreak

[1] The position of the temple of Venus and Mercury at the fountain Salmacis was obviously chosen on account of the mythical connection of the nymph Salmacis with Hermaphroditos, the offspring of Hermes and Aphrodite. See Rathgeber, Bullet. dell' Inst. Archeol. di Roma, 1839, p. 182, who cites Schneider's conjecture that Vitruvius borrowed his description of Halicarnassus from some Greek author, and that the words "Veneris et Mercurii fanum" are an erroneous translation of Ἑρμαφροδίτου ἱερόν, in the original Greek text. On the myth of Hermaphroditos and Salmacis, see Ovid. Met. iv. 285, sqq.; Diodor. iv. 6. Festus, *s. v.* Salmacis, gives an absurd reason to account for the emasculating influence attributed to the waters of Salmacis. It is curious that he describes the entrance to the source as *angustatus parietibus*, as he must have had in view a fountain flowing into an underground aqueduct, such as exists to this day at Burinna, in the island of Cos.

looking down[j] from the heights which he occupied, he saw the two citadels, Salmacis and the fortress in the island, still occupied by the Persians. It is quite evident that he must have first secured his position in the highest part of the city, taking possession of the fort on the conical hill and the rocky salient near the Mylasa gate, and that he must have then descended to the shore.

The rocky peninsula, formerly an island, has been already noticed (see *ante*, pp. 10, 38), and will be more fully described in Mr. Pullan's account of the Castle of St. Peter, which forms one of the appendices to this work. Here stood a Greek citadel, of which the walls may still be traced by the beds cut for their foundations on the south side of the Castle of St. Peter, and near the central keep.

This peninsula is evidently the promontory Zephyrium, which, according to Pliny,[k] was added to the land by the sea at Halicarnassus. When this change in the outline of the coast took place we are not informed, but it must have been at a very early period. Scylax of Caryanda[l] describes the principal harbour at Halicarnassus as "surrounding the island."

This expression is strictly accurate, for there is good anchorage for caiques in the bay east

[j] Κατιδών, is the expression used by Arrian, i. 23.

[k] Nat. Hist. ii. 91.

[l] Periplus, § 98:—καὶ ἄλλος λιμὴν περὶ τὴν νῆσον. This must be the island mentioned in an inscription, C. I. No. 2,656, l. 27. ἀγειρέτω πρὸ νήσου.

of the Castle, and for large ships in the road outside.

A little to the south of the Temple of Mars is a row of Doric columns, thirty in number, the shafts of which are half buried in the soil within about 6′ of their capitals.[m] These columns still support their entablature, and are evidently part of a portico or *stoa*, as the architrave has not been adapted to receive a crossbeam. Digging down to the base of the shafts, we found on their north side coarse tessellated pavement of the Roman period. Immediately to the south of this row of columns are a number of vaults built of rubble and concrete, which are partially visible just above the present surface of the field. At the foot of the eastern wall of the Mausoleum was found the inscription, Appendix No. 3, which records the building of a *stoa* dedicated to Apollo and King Ptolemy, probably Philadelphus or Euergetes, by the people of Halicarnassus; and, a little further to the east, I observed, built into a house, a corner-stone, on which are inscribed the commencing words of the first two lines of the dedication of this *stoa* :—

Ἀπόλλωνι καὶ Βασ(ιλεῖ Πτολεμαίῳ)
Ὁ δῆμος τὴν στ(οάν).

From the discovery of these inscriptions so close together, it may be inferred that the edifice to which they relate stood somewhere in the neighbourhood, and, as the place where they were found

[m] Engraved, Choiseul Gouffier, Voyage Pittoresque, i. Pll. 99—101, where these columns are erroneously described as ruins of the Temple of Mars.

is only a little to the south of the Doric colonnade, I think it possible that this may be part of the *stoa* dedicated to Apollo and King Ptolemy.

The date of this colonnade would thus be from 300 to 200 B. C. It may be thought that its architecture presents rather the characteristics of the Roman than of the Macedonian period; but, so far as we can judge from the very few extant examples which remain to us, it seems probable that, in the first century after the death of Alexander the Great, Greek architecture underwent a rapid decline. This we see from comparing the Doric *stoa* erected by Philip V. of Macedon at Delos with the earlier and purer examples of the same order at Athens and elsewhere.[n]

A little to the east of the Doric portico is a platform on which are the ruins of a Byzantine monastery, called Hagia Marina (Plate XLVIII.). This, from its central position, was considered by Captain Spratt to be the site of the Mausoleum; but excavations on the spot led me to suppose that a Gymnasium might have stood here. Immediately to the south of it is a field called after the name of its owner, the field of Chiaoux. It will be subsequently shown that a temple of Demeter and Persephone probably stood on this site.

The tombs of the ancient city extend over a considerable space both within and without the walls. It has been already stated that the conical

[n] See Fergusson, "History of Architecture," i. p. 268. For an engraving of the *stoa* of Philip at Delos, see Stuart's Athens, London, 1827, iii. p. 126, Plates LI. LIV.

hill to the north of the Mausoleum on which the theatre is situate is covered with rock-cut tombs, for which the tufaceous rock afforded great facilities. On the east of the town, at a place called Kislalik, is an extensive cemetery, the tombs of which mark the line of the ancient road to Mylasa, and extend as far as the foundations of a second line of fortifications on the east, which is marked on the plan in dotted lines.

On the opposite side of the city, the course of the ancient way leading to Myndus may be traced by groups of tombs on each side. Both these cemeteries were partially explored by me in excavations, an account of which will be given in a subsequent place. Other tombs may be seen on the rocky ground south of Caplan Calessy, and near the church of Hagios Georgios on the opposite side of the bay.

Budrum abounds in ancient reservoirs cut in the rock, and fed by subterraneous aqueducts, into which the rain-water was conducted by earthen pipes and square shafts.

This system of drainage must have insured a constant supply of pure cool water in the hottest weather, and must have intercepted the torrents which now in rainy weather descend with headlong violence from the steep hills to the sea, ploughing up the streets with deep watercourses. According to Scylax, there was a river at Budrum. By this he could only mean a χειμάῤῥους, or bed of a winter torrent, of which there are several. The most considerable is that which descends between

the eastern wall of the city and Kislalik, crossing the Mylasa road. This must have altered its bed since the time of the ancients, as it now has carried away several of the tombs which formerly must have stood on its banks.[o]

[o] The physical features of the site of Halicarnassus are thus described by Captain Spratt in his Memoir cited *ante*, p. 272 :—

"The beauty and advantages of the position chosen by Mausolus for his capital are not seen until the basin within the island (Karada) is entered, when the Castle of St. Peter presents itself to view, in bold relief against a theatre of hills lying close at the back. Between the foot of the hills and the Castle intervenes a narrow strip of land, covered with olive, vine, and fig-trees, among which are interspersed many flat-roofed cottages. This luxuriant patch of cultivated ground nearly defines the extent and limits of the ancient city, as the mountain's sides above it produce only a stunted vegetation on its limestone surface. The bay is formed on the west by a rugged sterile promontory composed of volcanic ejections, peperino, and trachyte, and does not exceed 300 feet in height. This ridge is almost cut off from the main chain, being connected with it only by a narrow neck of rising ground springing from the base of a conspicuous conical hill in the north-west angle of the city. This cone is composed of volcanic matter, while the higher ranges immediately behind it are of nummulite limestone, uplifted and greatly disturbed by these eruptions."

CHAPTER X.

FIELD OF HADJI CAPTAN.

Former discovery in this field of a torso. Extensive foundations laid bare by our excavations. Tessellated pavements. Upper Level. Room A.—Subjects of the mosaics. Sunk square in the centre. Room B.—Atalanta and Meleager. Dido and Æneas. The Seasons. Room C.—Group of Amphitrite and Tritons. Fish. Room E.—Heads representing the three cities, Halicarnassus, Alexandria, and Berytus. Lower Level. Passage D*a*.—Satyr and Mœnad. Dionysos with a panther. Medallions. D*b*.—Eros and Pan in a vineyard. Europa and the Bull. Water-nymph. Passage A.—Inscription. Passage B.—Medallions. External walls and general plan of the building. Architectural remains. Torso of winged female figure. Antiquities found in well. Structure of tessellated pavement. The building which anciently stood on this site probably a villa.

It remains now that I should notice other minor excavations, carried on in the course of the expedition at Budrum.

On the 10th of December, 1856, we commenced an excavation in a field at a short distance to the west of the Mausoleum, called, from the name of its Turkish proprietor, the field of Hadji Captan. (Plate I.) I was induced to examine this field from having ascertained that the torso of a draped female figure, obtained at Budrum on the removal of the friezes from the Castle in 1844, had been found here.[a]

[a] This torso is now in the British Museum, and has been engraved by Mr. Falkener, in his "Memoir on the Mausoleum," in the Museum of Classical Antiquities, i. p. 186. It appears to be of the Roman period.

The proprietor of the field having shown me the spot where this torso was found, I commenced digging all round it. At the depth of from two to four feet, I came to a Roman tessellated pavement, extending in various directions; following this out, I laid bare room after room, till at last the plan of a large villa was clearly made out.

The result of the whole excavation is laid down in the ground-plan (Plate XXXIX.).

The foundations marked in this plan extend from east to west 119′, and 89′ from north to south. The several rooms contained within this space are marked in the plan with the letters A to E.

Of these rooms A, B, C, and E, are on a higher level than the rest.

Room A.

This room measures 26′ by 27½′.

In the centre of the apartment was a rectangular area, sunk below the level of the floor to the depth of 10″, and measuring 7′ 6″ by 7′ 4″. This was paved with polished slabs of white marble, laid on a bed of pounded brick and concrete, 8″ thick.

The slabs of marble were 1″ thick, beautifully fitted and jointed. On the upper surface of this marble pavement was a layer of strong cement. It would appear that this central sunk square either belonged to an earlier room, or, having been part of the original plan, was afterwards filled up to the same level as the rest of the floor. Round this square were four oblong pictures, each occu-

pying the centre of one of the sides of the room. These are marked in the Plan with the consecutive Nos. 2—5.

The subjects of these pictures were animals. The compartment on the west (No. 2 of the Plan) represented a group of three animals; on the right a greyhound gallops towards a goat, which advances at the same pace towards him from the opposite direction; behind the goat, on the left, is another smaller hound pursuing.

The opposite compartment on the eastern side of the room (No. 4) represented a lion and a bull rushing at each other; between them was a tree. The subject of the north side was a lion pursuing a goat from left to right (No. 3), and on the south (No. 5) was a panther chasing a hind.

The four angles of this room, marked No. 1 in the Plan, were severally filled up with a mæander of the plait commonly known as the guilloche pattern; the colours employed in which were blue, orange, red, and black on a white ground.

Each of the four pictures was set in a frame of indented pattern, black and white; outside of which ran a border of guilloche plait; outside this again, a broad white margin, studded with stars, marked the boundary of the pavement on the west, north, and south sides. On the east side of the room was a border of six dolphins arranged in pairs. These dolphins are blue, the fins red, the outlines black on a white ground: between each pair is a flower.

The sunk square in the centre of this room was surrounded by a broad plait of red, orange, white,

black, blue, on a blue ground. In the centre of each of the spirals formed by the plait, was a lozenge composed of orange, red, white, and black *tessellæ*.

This border was very coarse, and appears to have been inserted in the general design at a later period.

The animals in this room were designed with great spirit; their movements were full of life; the colouring, though only partially true to nature, was very rich and harmonious. The bad condition of the pavement in this room made it impossible to take up more than four of the animals. These were the dog and goat, and the two lions.

Room B.

This room was a rectangle, 62′ in length by 25½′ in breadth. The central part of the room had been nearly all destroyed; the patterns have been, therefore, restored in the Plan (Plate XL.), from the slight traces of them which remained. At the west end of the room was an oblong mosaic, representing Meleager and Atalanta hunting, which may be thus described:—Both are riding at full speed from opposite directions towards the centre of the picture, to attack a lion and a leopard. On the left is Atalanta, who wears a tight-fitting Amazonian jerkin and buskins; at her back hangs a quiver, a red *chlamys* flies back from her shoulder; she is drawing a bow to shoot a lion, who is galloping towards her. Over her horse's head is inscribed ΑΤΑΛΑΝΤΗ. Her jerkin is coloured yellow, her horse dark blue.

On the right is Meleager, thrusting his spear at a leopard, who is attacking him. He wears a dark blue *chlamys*, buskins, and a white tunic reaching to the knees, ornamented with vertical green stripes.

Behind this figure was inscribed his name—ΜΕΛΕΑΓΡΟϹ. This design was all too much damaged to be taken up. The colouring of the picture was rich and harmonious, but the drawing very bad, and the figures out of proportion. The details of costume are curious.

In the corresponding oblong compartment at the eastern extremity of the room was another hunting-scene, in which the personages represented are Dido and Æneas. They are both mounted and galloping towards each other from opposite directions. On the left is Dido, aiming her spear at a wild beast in the centre of the picture; but this part of the design has perished. Dido is sitting sideways on her horse; she wears a singular dress, apparently of leather, fitting tight round the body, and reaching to the knees; her right shoulder and breast are bare; behind her head is inscribed her name, ΔΕΙΔΩ. Her dress is coloured yellow; from her shoulders flies a red scarf; her hair is yellow, her horse of a dark blue colour.

Opposite to her on the right is Æneas, the greater part of whose figure is destroyed; he is urging his horse at speed; his spear is couched. Behind his head is inscribed his name AINEA(Ϲ). At his side is a dog galloping. In front of Æneas, and nearly in the centre of the picture, is a panther rising to spring at him. A tree appears beyond this

animal. The horse of Æneas is coloured yellow. The colouring and drawing of this picture are in the same style as the opposite hunting-scene.

All the figures in this compartment were much injured, and no portion of it could be taken up.

Between the two oblong compartments were two circular patterns, each inscribed in a square (see the Plan). A third oblong compartment probably occupied the space between these circles, but in the centre of the room nearly all trace of the mosaic had disappeared.

The circle on the west was formed of a guilloche plait, within which were eight squares, so arranged round the inner edge of the circle as to contain a star of eight points. These squares had all been destroyed but two, one of which contained a flower, the other a guilloche knot. The portions of the circle inclosed between the circumference and the sides of two adjacent squares were filled up by a vase, from which issued on either side a branch of ivy with tendrils.

The angles of the square within which the circle was inscribed contained, severally, one of the Seasons, represented by a female head, over which the name of the Season is inscribed.

At the north-west angle (No. 5) was the Spring, —AIAP, personified by a youthful female bust, with long hair flowing down her neck; her garment was a white tunic, ornamented with black and red vertical stripes, and fastened on either shoulder by a circular *fibula*.

Opposite to her, at the north-east angle (No. 9),

was Summer,—ΘΕ[P]OC. She was also represented with long flowing hair, bound with ears of corn.

The south-east angle must have contained Autumn, all vestige of which had disappeared.

At the south-west angle (No. 6) was Winter, inscribed [X]EIMΩN. Her garment was a green tunic, fastened on the shoulder with a circular brooch; her hair, flowing down her neck, was covered behind with a veil: on each side of her head was a reed.

All these figures were represented with long wings; their bodies were cut off at the waists. The relative position of Spring and Autumn seems to correspond with the direction from which the wind, characteristic of either season, blows.[b]

The outer circumference of the circle at the other end of the room, was a plain black ring, within which was a concentric indented ring, both black on white. Within this border was a broad plait, the curves of which contained eight smaller circles. The plait was composed of concentric rings and indented bands. The smaller circles, each, probably, contained some animal or flower. Three only of these circles remained, one of which (*b* of the Plan) contained the hinder half of a goat galloping from south to north; the other two (*a* and *c* of the Plan), a bird perched on a tree. In these the colours employed in the plait were blue, red, crimson, and black, on a white ground. Only a very small portion of the great

[b] Similar heads of the Seasons decorate the angles of a large tessellated pavement discovered by Mr. Davis at Carthage, and published by Mr. Franks, Archæologia, xxxviii. pp. 228-30. Plates XI. XII.

circle was preserved, and only one angle of the square in which it was inscribed. This angle was filled up by a vase, in form like the *amphoræ* of Southern Italy of the latest period. Out of this vase issued, on either side, an ivy branch.

The oblong pictures at either end of this room were set in a border of wave-pattern, black and white. Round the room, and inclosing the whole of the inner patterns, was a broad guilloche plait, orange, crimson, blue, and black. The extreme outer margin of the pavement was formed by a broad border of white, studded at intervals with small black stars.

In consequence of the decayed state of the mosaic in this room, only small portions of the figures could be taken up.

Room C.

This, as will be seen by reference to the general Plan, is a gallery 40′ long by 12′ wide, running east and west, and terminating at the west end in an apse. The pavement in this room was in very good condition, and we succeeded, therefore, in taking up nearly the whole of it in squares. The design consisted of three compartments.

At the west end was a group representing a naked female figure, floating amid waves and dolphins; on either side of her was a youthful Triton, holding up the edges of a veil, which floated behind her. The heads of the two Tritons were surmounted by horns, or, perhaps, the claws of shell-fish, placed upright.

The female figure, probably Amphitrite, was represented spreading out her long hair over her shoulders. The centre part of the design was formed of squares, intersecting so as to form crosses and smaller squares. The colours used are red, crimson, blue, and yellow.

The eastern compartment was a square, in which was inscribed a circular pattern, composed of a guilloche plait, interlaced with a band of lozenge pattern. In the circles formed by these interlacings were, alternately, a square and flower. In the centre of the design was a guilloche knot. The colours used in this pattern are red, crimson, blue, and yellow.

At the eastern end of this room two steps, 8 inches deep, led down to the lower level of Room D, and Passages A and B. On one of these steps was a mosaic of fish, remarkable for the excellence of the drawing and colouring.

Room E.

This is a narrow strip, lying north of Room C, in length 14′ by 6′ 3″ in width.—(See Plan.)

The design was contained in an oblong compartment, bounded by a frame formed by the interlacing of a guilloche plait, a band striped in several colours, and a zigzag band. These interlacings were continued from the frame, over the inner area of the compartment, so as to form three loops, within each of which was a circular medallion.

The medallion on the west (E, 1) represented a female bust; round the head was inscribed "Halicarnassus,"

A N
ΛI A
KA CO
P C

of which city this bust is a figurative representation. The head was surmounted by a mitre, coloured crimson. The tunic was light blue, bordered with black, having two parallel vertical stripes in orange down the breast. These were united by a zigzag of black, red, and orange.

In the central medallion (E, 2) was a female bust representing the city of Alexandria. The head was turreted; on the shoulders was a tunic ornamented with two parallel vertical stripes, black and orange, between which were zigzags, red, orange, and pink. On either side of the stripes was a zigzag, black and orange, on a blue ground. Round the head was inscribed the name:

A
ΛE ΔPI
XA A
N

Medallion E, 3, represents, in like manner, the city of Berytus (Beyrout). This female head was surmounted by a crimson mitre; the hair was long. The tunic was, in like manner, ornamented with vertical and zigzag stripes. The colours employed were orange and black for the vertical stripes, and black, orange, and white, for the zigzags.

The ground of the tunic appeared to be pink; round the head was the name:

BH
PY TOC

The colours used in the three interlacing borders, were blue, red, crimson, orange, black, on a white ground. The triangular spaces, formed by the interlacing of the plaits, were mostly ornamented by a bird.

The three heads were in a late coarse style. The costume was also[c] of a very late period. The personification of cities, as female figures with various attributes, was very common in the art of the Roman period, especially on the coins of the cities of Asia Minor, struck in the reigns of the later emperors.[c] It is not improbable that the combination of Halicarnassus, Alexandria, and Berytus, on this mosaic, may indicate an alliance (ὁμόνοια) between these three cities, probably in connection with some religious festival. The pavement in this room was too much decayed to be taken up.

Having completed the description of the pavements in the higher level, I have now to notice those lying south of A, B. To these there is a descent of two steps, about 8 inches deep each.

[c] Compare the late Roman bronze relief, representing five figures, inscribed respectively Carthage, Constantinopolis, Ro(ma), Nicomedi(a), Siscia, published by C. Boeck, Sitzung's Berichte d. k. Akad. d. Wissensch. Wien. Bd. xxvii. Heft 1, p. 57. This relief formed part of the covering of a cedar casket found in Croatia.

Room D.

The principal pavement on this lower level was that of Room D (see Plate XLI.). The design of this pavement consisted of two distinct parts. On the north was an oblong strip (D, *a*) running from west to east, in length 51 feet, by 15 feet in width, bounded on every side by a border of interlaced diagonals, black on a white ground. Within this outer border was an inner one of small medallions. Inside this broad margin was an oblong design, containing five wide and four narrow compartments.

At either end was a square compartment (D, *a*, No. 1, No. 9), in which was inscribed a circular pattern, consisting of several concentric rings; in the centre was a bearded and shaggy head, with a wild expression, surrounded by a circle of leaves radiating outwards.

The principal outer circle was composed of the bead-and-reel ornament. The whole of this design much resembled that of an ægis, or buckler, of which it was probably an imitation. The head in the centre was probably that of "Phobos" or "Terror," often placed, like the head of Medusa, in the centre of bucklers.

The angles of the square, within which these circles were inscribed were severally filled up with a flower.

Between these two circular patterns were three oblong compartments, each containing a picture.

The subjects were the following:—D, *a*, 3, the furthest to the east, represented a male figure, pro-

bably a Satyr pursuing a Nymph or Mænad. The head and shoulders of the male figure were destroyed. In his right hand he held a *pedum*, or shepherd's crook, from which hung a singular object, shaped like a bell, and coloured yellow: a panther's skin hung from his shoulder. The female figure was looking back to him in her flight. The middle of the body was destroyed. Her tunic was blue, edged with black.

D, *a*, 5, the centre compartment of the whole, was a very elegant group of a Nereid seated on a Hippocamp.

D, *a*, 7, represented Dionysos with a panther; above was inscribed his name, ΔΙΟΝΥΣΟΣ.

Dionysos was represented as a youthful naked figure, moving to the right at the side of his panther. In his hands, which were extended on either side, he held up a red scarf bordered with black.

Each of the four narrow compartments, D, *a*, 2, 4, 6, 8, contained a lozenge set in a parallelogram, the pattern being slightly varied in each case. In No. 2 and No. 8, the lozenge contained a singular ornament, consisting of two cup-shaped objects, perhaps flowers, connected by a fillet. This ornament was coloured orange and red. In No. 4, the inner ornament of the lozenge consisted of an object like a small glass vase with a foot, coloured blue. No. 6 contained a Pan's pipe, coloured orange and crimson, and picked out with blue and green.

In each of the angles between the lozenge and the parallelogram was a crimson flower in the

form of a cross-patée. The outer border of the compartment was a guilloche plait, crimson, blue, and yellow.

The medallions which formed a border round these inner designs were each set in an octagonal frame. They are numbered consecutively from 1 to 41, and consisted of the following subjects:—

(1.) Bird, perched on a branch.
(2.) Circular flower.
(3.) Bird, perched on a branch.
(4.) Youthful head, full face, the hair falling in long tresses.
(5.) Same as No. 1.
(6.) Same as No. 2.
(7.) Bird.
(8.) Idem.
(9.) Two fish.
(10.) Ibis.
(11.) Head of youthful Dionysos to the front, with long hair, bound with diadem and ivy wreaths.
(12.) Same as No. 2.
(13.) Two fish, their heads in opposite directions.
(14.) Cock; in front, branch.
(15.) Bird; in front, flower.
(16.) Same as No. 2.
(17.) Head to the front, with long hair.
(18.) Bird, with crimson plumage; below, branch.
(19.) Bird, with long red legs, perched on a flower.
(20.) Bird; in front, flower.
(21.) Head to the front, encircled with green wreath.
(22.) Destroyed.
(23.) Circular flower.
(24.) Bird, perched on a green branch.
(25.) Head to the front, with flowing hair.
(26.) Bird, perched on a green branch.
(27.) Flower of eight leaves.

[The medallions intervening between Nos. 27 and 33 have been destroyed, but their number has been calculated by measurement.]

(33.) Bird, pecking at branch.
(34.) Destroyed.
(35.) Bird, pecking at branch.
(36.) Aquatic bird.
(37.) Bird, with branch.
(38.) Head to the front.
(39.) Circular flower.
(40.) Bird, standing on a branch.
(41.) Cock.

These medallions were all on a white ground. Their colouring was very harmonious, and the whole design of room D is very elegant.

South of D, *a*, was D, *b*, a rectangular space, 31′ by 25′, bounded by a party wall on the east, south, and west sides. This space contained the following designs. On the extreme east was an oblong picture (D, *b*, 1), representing a scene in a vineyard. Nearly in the centre of the picture a bearded goat-legged figure, Pan, was gathering grapes from a vine. Before him stood a winged boy, probably Eros, extending his arms towards the same bunch. On the extreme right, behind the goat-legged figure, were a panther and three birds, one of which has a string fastened round its neck.

On the left, behind Eros, was a lion galloping towards him, and a greyhound running in an opposite direction towards a hare, on the extreme left, represented feeding on a bunch of grapes. The colours of the animals in this scene were arbitrary. The panther was dark blue with yellow spots; the greyhound also blue. The leaves of the vine were composed of *tessellæ*, in cubes of green glass.

This mosaic was too much damaged to be taken up.

At the south end of this picture were two dolphins (D, *b*, 2, 3), their heads confronted, with a trident between them; and on the west side was a white border, studded with lozenges, twenty-nine in number.

The colours used in these lozenges were red, orange, white and black (D, *b*, star border).

Next to this border, and occupying nearly the centre of D, *b*, were two pictures. The one on the north (D, *b*, 4) represented Europa standing by the side of the bull, whose head is turned back towards her. Europa wears a wreath; her body is naked from the neck to halfway down the thigh; a blue *peplos* passes across her lower limbs. The bull is of a tawny colour, with stripes of crimson and white. This group was in a better condition than any of the other mosaics in this field, and was interesting as a specimen of drawing.

To the south of this picture were two smaller ones, of which the upper one had perished. That below it (D, *b*, 5) represented a water nymph reclining; her right arm rests on an urn; in her left hand she holds a flower. The upper part of her body is naked; over her lower limbs is thrown a blue *peplos;* at her feet is a tree. The head of this figure was destroyed.

At the north-east angle of this picture was a bird pecking at a flower (D, *b*, 5*). This bird was placed at right angles to the female figure, the head of the bird pointing west. It was, however, included in the

same border. Below this, to the east, was a dog pursuing a hare (D, *b*, 6), very coarsely executed in arbitrary colours. Round three sides of this picture was a border of birds, marked *a* to *l* in the Plan. This border runs on from *l* to *n*, to the north of Europa (D, *b*, *m*, *n*).

In the original design another picture must have ranged in line with the dog and hare, and to the north of it. This was subsequently cut off by a well inserted in the pavement, at the north-west corner of D, *b*.

The whole of the pictures in D, *b*, were surrounded by a border of circular medallions (1 to 31 of the Plan).

The subject of nearly all the medallions was a bird perched on a branch. Some of these are long-legged aquatic birds, like the ibis.

The medallions intervening between the 1st and the 7th, and between the 12th and 19th, were destroyed. The circular frames of these medallions were formed by an interlaced guilloche plait, of which the colours were red, orange, blue, black, and white. This border terminated at its north-western angle with two ivy leaves set in an oblong frame. Outside the border of medallions was one of dolphins (1 to 11 of the Plan), commencing at the south-west angle of the wall, and extending thence along the western and southern sides as far as the eastern line of the medallion border, beyond which is a plain margin; a pair of dolphins being placed in a line with the medallion border, and adjacent to the vineyard picture. All these dolphins were

arranged in pairs, their heads confronted; they were coloured in two shades of blue, with red fins.

The north-western angle of D, *b*, between *m*, of border *a* to *m*, and No. 1 of the outer dolphin border, was covered with a plain white mosaic, which was continued west of D, *a*, to the small square space marked "closet" in the Plan of D, *a*.

All the pictures in this room were placed so as to be seen from the western side, except the vineyard, which was placed facing the opposite direction.

Passages A and B.

The west and south sides of D, *b*, were bounded respectively by a passage.

That on the west side, passage A of the Plan, was $51\frac{1}{2}'$ in length, by 10′ in width. Its pavement may be thus described.

The principal design runs down the centre of the passage, occupying rather more than half its width. It is divided into nine rectangular compartments (Nos. 1 to 10, passage A), varying in size and shape.

Commencing from the north end of the passage (No. 1, passage A) is a square containing a circle of guilloche plait. In the centre of this circle is a disk of three colours, round which are set four circular patterns, each formed by four almond-shaped objects placed round a central disk. Between each pair of circles is an almond.

In each of the disks and almonds the two external

rows of *tessellæ* forming the outline, differ in colour from the centre.

In each of the angles of the square outside the guilloche circle is an ivy-leaf with tendrils.

The colours employed in this compartment are red, crimson, blue, orange, and black; the ground is white.

No. 2 is an oblong compartment, containing two parallel rows of adjacent octagons running from north to south, and occupying the entire breadth of the pattern.

In each row are four of these and part of a fifth.

The alternate octagons in these rows contain, severally, a bird perched on a branch; and the others, a flower set within four hexagonal prisms. The four squares intermediate between the two rows of octagons contain, severally, a flower, a pomegranate fruit, an ivy-leaf, and a pattern formed of two intersecting almonds.

In the triangular spaces contained between each pair of adjacent octagons and the border of the compartment, all round, are set triangles, each of which contains half a flower or a leaf. The colours used in this compartment are the same as in No. 1.

No. 3 is a rectangle containing a lozenge, within which is a dolphin.

The angles of the rectangle are, severally, ornamented with a flower.

Nos. 4, 5, 6, form one rectangle, the centre division of which (No. 5) is a square containing a laurel wreath.

Within this wreath is the following inscription :[d]

ΥΓΙΑ
ΖΟΗ
ΧΑΡΑ
ΕΙΡΗΝΗ
ΕΥΘΥΜΙΑ
ΕΛΠΙϹ

The letters are in black on a white ground. The colours used in the wreath are red, crimson, blue, black, and orange. These colours are very harmoniously combined, and the effect of this pattern is very pleasing.

Nos. 4 and 6 are rectangles nearly identical in pattern. Each contains four squares and four lozenges, placed alternately. In the centre of each square and lozenge is a flower; each lozenge is bordered with white, and the squares are bordered with red and purple alternately. The colours used in these rectangles are red, white, purple, orange, black. The ground is dark blue.

No. 7 is a rectangle filled with a chequered pattern of the following colours :—blue, orange, purple, black, and red. The form of these chequers may be described as the half of a *pelta*, or Amazonian shield.

The several rows of chequers traverse the breadth

[d] This inscription may be compared with one from a temple in Nubia, Boeckh, C.I., No. 8,889. Inscriptions rarely occur in tessellated pavements, except when they are employed to mark the name of the subject represented. On one of the pavements brought from Carthage is the fragment of an inscription of some length. —See Mr. Franks' Memoir in the Archæologia, already cited, pp. 25, 26.

of the rectangle obliquely, so as to form a succession of parallel rows. The ground is white.

Nos. 8, 9, form a rectangular pattern composed of stars, crosses, lozenges, and triangles, combined in a very intricate manner. Down the centre of the rectangle is a row of four stars, each of five points, formed of black lines on a white ground.

In the centre of each is a cross of red, black, and crimson. On each side of this central row is a row of five stars, of four points each.

In the centre of each is a cross. The colours used in these are orange, red, black, and crimson. The spaces between these stars are filled up with lozenges, triangles, and squares containing crosses. The ground is white, the colours employed are those already named, and blue.

No. 10, the last compartment in this passage is a square divided into a number of rectangles and squares, large and small, which are thus arranged. Four small squares range alternately with three rectangles; then, three larger squares, alternately with four rectangles. Then, smaller squares arranged as before, and so on, the rows of larger and smaller squares alternating with intermediate rectangles all through the compartment. Round each larger square a circle is inscribed, which contains a smaller square set diagonally to the larger one. In the centre of each diagonal square is a Maltese cross or an ivy-leaf. The colours employed in this pattern are red, orange, blue, black, purple; the ground is white.

Round the several patterns runs a border com-

posed of the Greek bead and reel, in crimson, red, blue, orange, and black colours, on a white ground. This pattern is bounded on each side by a narrow black band.

With reference to this border, Nos. 4, 5, 6, are to be considered as one pattern, and 8, 9, as another. The extreme outer margin of the passage is formed by the same broad border of diagonal black lines on a white ground as D, *a*, and Passage B. The patterns in Passage A are rather coarse and common.

The inscription in the centre is, however, curious, and the wreath very elegant.

Passage B.

This passage is in length 64′ by 14½′ in width. The design of the pavement is the counterpart of that of D, *a*, which space the passage itself balances in the general Plan. It may be thus described:—The central part is formed of a series of rectangular compartments (Nos. 1 to 11), bounded on either side by a border of medallions set in octagonal frames. No. 1, the first of these compartments, commencing from the west end, is an oblong parallelogram containing a mæander, fret, black on a white ground.

In the spaces between each pair of frets is a square, in the centre of which is either a cross *patée* or a small square on a white ground, contained within a deep border. The colours used in the borders are red, crimson, and orange, and in the crosses and smaller squares, blue, black, and orange,

picked out with crimson and red. In each fret, the point of intersection of the two mæanders is marked by a small square, orange, plain, or picked out with red. No. 2 is a circular pattern, inscribed in a square; in the centre is an ægis within a circle of leaves radiating outwards, and several concentric circles. This pattern is the same as Nos. 1 and 2 of D, *a*.

Nos. 3, 5, 7, 9, 11, are lozenges set within oblong compartments, nearly identical with those already described (Nos. 2, 4, 6, 8, D, *a*), but slightly varied in detail. Between these lozenge compartments are larger oblong compartments (4, 6, 8, 10), each of which once contained a picture. These designs are, for the most part, destroyed. Their condition is as follows:—

No. 4.—No remains of the subject, except part of a *thyrsus*.

No. 6.—Fragment of an inscription in black on a white ground, in which the word οἶκος can be distinguished; the few other letters which remain are only parts of words. This inscription is probably at least as late as the end of the 3rd century A.D., as the O is lozenge-shaped.

No. 8.—No remains of the subject, except two sandalled feet, apparently of a female dancer, her head turned to the south.

No. 10.—The lower half of a goat-legged figure, probably Pan; the rest destroyed.

These compartments are set in a guilloche frame. The border of octagonal medallions round this passage was entirely destroyed on the south side, with

the exception of medallion No. 1, at the south-west corner. The subjects of those still remaining may be thus described:—

(1.) Two interlaced loops, within which a cross *patée*.
(2.) Star of eight points.
(3.) Bird, pecking at a branch.
(4.) Head to the front, with long hair.
(5.) Bird.
(6.) Same as No. 2.
(7.) Same as No. 1.
(8.) Knot within square.
(9.) Fish, in waves.
(10.) Tree, with fruit.
(11.) Fish.
(12.) Destroyed.
(13.) Single rose.
(14.) Same as No. 2.
(15.) Destroyed.
(16.) Similar to No. 11.
(17.) Cock.
(18.) Tree.
(19.) Palm-tree.
(20.) Fruit-tree.
(21.) Two objects, crossed, perhaps *strigils*.
(22.) Fruit, in dish.
(23.) Bunch of grapes.
(24.) Stork.
(25.) Head, with long hair.
(26.) Bird.
(27.) *Pelta*, or Amazonian shield.
(28–31.) Wanting.
(32.) Two loops interlaced, similar to No. 1.
(33–35.) Destroyed.
(36.) Palm-tree.

The plan and purpose of the building of which these mosaics formed the floors could not be ascertained. On the east, the foundations being bounded

by a Turkish cemetery, the ground could not be explored further in this direction.

It is probable that the northern wall of Rooms A and B was the outer wall of the building on this side.

On the east, the extent of Room D and of Passage B could not be determined. We traced the foundations on this side as far as the Turkish burial-ground, where all remains of them would, of course, be destroyed in the process of interments. It is probable, however, that the eastern wall of Room B was prolonged to the south, so as to form the boundary-line on the east of Room D and Passage B.

This wall in Room B was built of very large squared blocks, and was, therefore, probably an outer wall.

On the south and west sides, the extent of the building is unknown.

South of Room C, the pavement ran on under the modern wall of the courtyard of Hadji Captan's house. This wall, forming a right angle near a gate on the west side, is marked in the Plan (Plate XXXIX.). Within the angle thus formed was found, some years ago, the torso of a colossal female statue, now in the British Museum, which has been already mentioned.

In this courtyard was a deep oblong tank, cut out of the native rock, in length 11 feet by 5 feet. (See the Plan.) I was assured that in the soil at the bottom of this tank pieces of ancient bronze and other antiquities have been found.

The lines of foundation presented no trace of a

doorway, except at the eastern extremity of room C, where, as has been already stated, were two steps leading down to passage A.

The foundation walls vary in thickness, as may be seen by reference to the plan. They were composed of large squared blocks, intermixed with rubble, with, occasionally, the drum of a column from some earlier building. Some of these drums were from Doric columns, with late shallow flutings, made of a calcareous stone which has been covered with stucco. Several large pieces of cornice of the same material, and which had once been covered with stucco, were also found in the building. From the position in which these were lying, they would appear to have fallen from the roof of the building, which, like most of the Roman dwelling-houses which have been discovered, was, probably, only one story in height.

In the courtyard of Hadji Captan's house was the base of a Roman column dug up on the same site.

It would appear that the building, of which the tessellated pavements formed the floor, was constructed out of the materials of an earlier building on the same site, and that its own plan was altered in several places after erection. Thus under the pavement of room C were found pieces of painted stucco, and of an earlier tessellated pavement; under the pavement of room B was the statue of a winged female figure, in two pieces, the head and arms wanting, the upper part of the body broken off from the lower part at the waist. The statue is about life size, and represents a winged female figure in rapid motion. The left foot,

which is wanting, has been inserted in a recess in the drapery. The form is slight, and the proportions those of a young girl; the drapery is violently agitated by the rapid motion, and is deeply undercut. At first sight this figure bears some resemblance to the statues in the British Museum, from the Ionic monument at Xanthus; but the style is very inferior. The lines of the drapery are so hard and wiry that this work can hardly be earlier than the Roman period, and is probably of the second century A.D. It may either represent Victory or Nemesis, dedications to which latter

Bronze lamp, 4⅜ in. by 3⅝ in.

Deity occur in inscriptions found at Budrum.[e] This figure is quite unfinished at the back, and must have been intended to be placed against a wall. Several other pieces of statues, and a small frag-

[e] Boeckh, C. I. Nos. 2662, 2663.

ment from a relief of the Roman period, were found in the same place. These fragments of sculpture had been employed with drums of columns to make an artificial level, where the rock had failed.

At the corner of D, *a*, was a small square platform, marked "Closet" in the plan, rising about 8″ above the pavement; on removing which the original pattern of D, *a*, was found to run on underneath, so as to fill this corner.

The well at the north-west angle of D has been already pointed out as a later insertion. In this well was found a male head in white marble, a small bronze lamp (see the cut on the preceding page), the remains of a wooden bucket hooped with bronze,[f] and a small conical piece of bone, turned

Bone draughtsman, actual size.

in a lathe, and used, probably, in the game of draughts, *latrunculi*, or some similar game. The marble head is life size, and of the Roman period. It is evidently a portrait. The shaft of this well was cut out of the solid rock; the mouth was square, with a groove, into which the cover of the well fitted. The diameter of this aperture was 1′ 10″.

[f] A wooden bucket with iron hoops was found with Roman remains at Stone, near Aylesbury, and casks were known to the Romans.—See Archæologia, xxxiv. London, 1852, p. 25, note.

At the depth of 14′ 8″, the shaft was traversed by a gallery cut out of the solid rock, and running north-north-east and south-south-west.

The height of this gallery was 6′, its width 2′ 6″; its length north-east of the shaft was 27′ 4″, and on the south-west 14′ 6″. The shaft was cut to a depth of about 10′ below this gallery. At the north-east end this passage terminated in a small arched opening leading upwards, evidently cut to receive a surface drain.

It is probable that this well was fed by earthen pipes, one of which was found under the pavement of room D, running from the direction of the well southwards.

The walls of room A and of D, *a*, still retained, in places, the white marble skirting with which they had been lined. The marble was cut into very thin slices. On the east, north, and west sides of room A the sides of a flue, formed of flat Roman tiles, still remained in places. Its position is indicated in the plan of room A. Its width was 1′ 7″; the upper part being broken, the depth of the flue could not be ascertained. In the line of foundations on the north side of D, *a*, was a cubical base, on which a statue probably stood. It was inscribed—

(Ἡγέ)στρ(ατος) ?
(Θυ)γατέ(ρα) ?

The tessellated pavement was generally found at a depth of from 2′ to 3′ below the present surface of the soil. In some places the depth of soil did not exceed 1′ 10″. On the lower level the depth

was greater. The pavement, as has already been stated, was in some places laid on an artificial level composed of drums of columns and ruins of former edifices. In other places the rubble bed of the pavement, or *rudus*, rested on the soil; in others, again, the rubble bed was omitted, and the upper layers of cement were spread on the rock itself.

Vitruvius lays down a rule in reference to the beds of tessellated pavements, that they were to consist of three courses, of which the lowest, called *statumen*, was made of stones large enough to fill the hand.[g]

It would appear that, in the building now described, this rule, from the nature of the soil, was not always followed; the rock itself being, in places, used as a substitute for the lower courses. The *tessellæ* were chiefly of marble; in one picture, however, brick was used in the red colour, and glass in the green. The cubes were irregularly cut, and not set with the precision and neatness which characterized the earlier Hellenic mosaic, fragments of which I discovered in a subsequent excavation at Budrum, as will be presently described.

The whole surface of the patterns was covered with a thick coating of incrustation, which appears to have oozed through the interstices of the pavement from the bed of cement below.

Upon a review of the whole of the facts brought to light in this excavation, I am of opinion that the site is that of a villa of the Roman period, built on the ground occupied by an earlier Hellenic edifice.

[g] Vitruv. vii. 1.

The tessellated pavements of this villa have been mended and altered subsequently to the original plan. It is not probable that any of them are earlier than the time of the Antonines; the latest may be subsequent to the reign of Caracalla.

The medallions in room E, and the pictures of Meleager and Dido, room B, appear to be of a later period than rooms A and D.

The orthography of *AIAP* for *EAP* in room B is singular, and may indicate some peculiarity of dialect in the province of Caria, retained from the early times, when the population was partly barbaric.

These tessellated pavements are remarkable for the extent of the whole design, the variety of scenes and ornaments which they contain, the richness of the colouring in places, and the number of inscribed subjects.

Views of the greater part of these pavements were taken in photography by Corporal Spackman, R.E., and the patterns of the remainder drawn by hand, with the exception of room C, the whole of which was taken up in squares, and sent to England. The photographs were taken from a moveable stage, on which the lens was so placed as to command a vertical view of the area below. Notes of the colours were afterwards taken by hand. From the impossibility of keeping the lens to the same focus, the views vary in scale; but with the aid of the plans, they could easily be reduced to the same scale by a skilful draughtsman, and a perfect facsimile of the whole thus presented to the eye.

CHAPTER XI.

EXCAVATIONS ON SEVERAL SITES—BUDRUM.

Excavations on the site of the Temple of Mars. Opinions of travellers respecting this site. Description of the foundations laid bare by excavation here. Confirmation of Captain Spratt's opinion respecting the situation of the Temple of Mars. Correspondence of the site with the description of Vitruvius. *Peribolus* of the Temple. Tombs at its western extremity. Platform of Hagia Marina. Description of this site. Byzantine walls. Remains of Hellenic *peribolus*. Discovery of fragments of tessellated pavement and painted stucco. The site probably that of a *Gymnasium*. Field of Chiaoux. First discoveries on this site. Terracottas. Various types of Deities. Inscription to Demeter and Persephone found *in situ*. The figures discovered, probably, votive offerings dedicated in a temple of those Deities. *Favissæ* or vaults, for the reception of such objects.

It has been already stated, *ante*, p. 270, that, nearly north of the Mausoleum, is a large platform, supported by a terrace-wall, and that, after excavating this site, I was led to the conclusion that the Temple of Mars once stood here. This platform, from its extent, commanding position, and the massiveness of the terrace-wall which bounds it, had attracted much notice from travellers. Mr. W. J. Hamilton and, more recently, Dr. Ross, a distinguished German archæologist, considered this as the most probable site for the Mausoleum. Captain Spratt, on the other hand, marks it in the

Admiralty chart as the site of the Temple of Mars, mentioned by Vitruvius in his description of Halicarnassus, and I have expressed the same opinion in my Memoir on the Mausoleum, published in the Classical Museum.[a]

On examining the site itself, it was evident to me that an Ionic edifice of considerable dimensions had once stood in the centre of the platform.

Several drums of Ionic columns of fine white marble, and 4′ in diameter, were lying on the surface in this part of the site. A little west of the same spot the outlines of the foundations of an oblong edifice were indicated by ridges in a field planted with figs, which is marked in the Admiralty chart, the foundations being laid down in dotted lines.

After having ascertained the true position of the Mausoleum, I was confirmed in my original opinion that the Temple of Mars must be looked for where it is placed by Captain Spratt, that is to say, on this upper platform. With a view of ascertaining this fact, I detached a small party to dig that part of the platform where the dotted lines of foundations are marked in the chart, and which lies immediately west of the drums of Ionic columns.

The result of this excavation was as follows. The upper surface of the ground was covered with small splinters of fine white marble, below which the soil principally consisted of boulder-stones and decayed rock, evidently brought down by torrents from the heights above. Digging through this mass of

[a] Hamilton, Travels in Asia Minor, ii. p. 32. Ross, Reisen auf d. Griech. Inseln ; Halle, 1852, iv. pp. 33-5.

rubble, we found below it, at a depth varying from 8′ to 12′, the native rock cut into beds and levels, to receive the foundation-walls and pavement of a large building. As the ground was cleared away, massive foundation-walls were laid bare, which are laid down in the Plan, Plates XLII. XLIII. The foundations are those of an oblong edifice, which has been traced from west to east for 80′, and probably extended originally about 20′ further in an eastern direction, towards the *frusta* of columns already mentioned. The width of these foundations is 46′. At the western end is a line of wall, 8′ in width, composed of large oblong blocks of coarse freestone rock, such as were used by the Greeks for the foundations of their temples, and were, in this instance, quarried out of the stratum in the field. These blocks were from 3′ to 5′ in length, and from 1′ to 2′ in thickness; they were built in regular courses of isodomous masonry, five of which still remained. On the eastern side was another line of foundations, built of similar blocks, 4′ in width; and on the north and south sides were also courses of masonry. Sections of these walls are given Plate XLII. The interior of the space thus enclosed was partially paved with large flags of the same freestone; towards the east end was sunk a square, where the native rock had been levelled for the reception of pavement. Little or no trace of the marble superstructure remained; these foundations, therefore, can only serve to give us the general form of the edifice built upon them.

I have already stated that the building, pro-

bably, extended further to the east in the direction of the spot where the drums of Ionic columns are still lying. A modern wall, parting two fields on the platform, is, perhaps, built on the eastern boundary of the Temple. It contains many fragments of fine white marble. East of this wall the ground where the pieces of column are lying is very shallow, the native rock rising within 2′ of the surface. I could not prolong my excavations in this direction as far as I could have wished, on account of the opposition of the owner of the more eastern of the two fields; I do not, however, think that much more of the foundations can still be traced in this direction.

Though the excavation failed to bring to light any large architectural marbles, a few small fragments of mouldings were found which are of some interest, because they prove that the edifice which stood on this site was of the Ionic order, and that it was executed, probably, about the time of Mausolus. The fragments of mouldings discovered here, in design, execution, general proportions, and in the quality of the marble, bear the most striking resemblance to those found on the site of the Mausoleum, and, like these latter, present traces of red and blue colour.

With these fragments were found portions of a *lavacrum* of red marble, on the lip of which Greek letters were inscribed. The form of these letters being also that in use in the time of Mausolus, these inscribed fragments are additional evidence of the date assigned to the edifice—the fourth century B.C.

Having obtained these results by excavation on this platform, I did not further explore it, as the ground was difficult to dig, and gave little promise of more important discoveries.

It is, however, a matter of some interest to have proved by excavation, that an Ionic edifice stood here, that it was on a considerable scale, and that it was probably executed in the same school of art as the Mausoleum; and if, with a knowledge of these facts, we revert to the statement of Vitruvius in reference to the Temple of Mars, I think there can be little doubt that it stood on this platform.

In the passage in Vitruvius already referred to, *ante*, p. 266, he states that the ancient city rose from the shore like a theatre, being shut in by hills bending round in a semicircle from the north; that in the centre of this curve, halfway up the height, *per mediam altitudinis curvaturam*, stood the Mausoleum, and that, higher up the hill, but still in a central position relatively to the curved form of the city, was the Temple of Mars.

The precise expression used by Vitruvius in reference to this latter building is, that it stood *in summa arce media*, a phrase which admits of more than one mode of translation, and which, I think, can hardly be understood without a visit to the locality which the topographer describes.

In my Memoir already referred to I have translated these words, "in the centre of the fortified heights above;" an examination of the upper part of the city enabled me to attach a still more precise meaning to the words of Vitruvius.

On reference to the plan of Budrum (Plate I.), it will be seen that the platform marked "Temple of Mars" in the chart, lies a little to the south of the wall of the ancient city, at a point where the hill makes a dip between two fortified heights, the two most elevated posts in the whole line of circumvallation, and, therefore, both to be included in the expression, *summa arx*.

Of these strongholds or *arces*, the one on the west is a conical hill of tufaceous rock, thrown up by volcanic agency to the height of 520′ above the sea; that on the east juts out into a long salient angle to the north-east, rising above the town in precipitous crags, and was, doubtless, one of the strongest parts of the ancient fortifications.

A temple lying between two such fortified heights might thus be described as placed *in summa arce media*, in the midst of, or between, the two highest and strongest posts in the northern wall of Halicarnassus. It is true that the words *in summa arce media* may be translated "in the centre of the highest citadel," or "of the citadel at the summit," and in this sense Dr. Ross[b] has understood the passage; but to such a mode of interpretation this strong objection may be made—that it cannot be reconciled with the actual features of the locality. Neither of the two heights can strictly be called a citadel, nor has the summit of either of them a sufficient extent of level area to afford a site for a temple, which, from the mode in which

[b] Reisen, ii. p. 37.

it is singled out by Vitruvius, was evidently one of the principal features in the ancient city; while, on the other hand, the platform where I have placed the Temple of Mars is the only spot in the whole range of the northern heights where I could discover any trace of the site of a temple, and the Ionic temple which stood here must have overlooked the Mausoleum precisely in the manner implied by the words of Vitruvius.

It appears from this author that the Temple of Mars contained an acrolithic statue, executed by Leochares, one of the artists employed by Artemisia to decorate the tomb of her husband. Others attributed this work to Timotheus.[c]

This statement agrees with the fact already mentioned, that the fragments of architecture discovered in the excavation on the platform were in the same style as those of the Mausoleum. It is, therefore, probable that this temple was built by Mausolus or by Artemisia.

The owner of part of the platform, a Turk, seventy years of age, informed me that he had heard his father speak of a large edifice with columns, as standing here within this century. It is said that this was destroyed, and the marble exported to Rhodes. Another Turk, owner of the eastern part of the platform, informed me that two statues had been found in his field during the lifetime of his father.

The massive wall still surrounding this platform

[c] Vitruv. ii. 8, § 11. Brunn, Geschichte d. Kuenstler, i. p. 388, conjectures that these two artists were probably employed conjointly on this statue, as in the case of the Mausoleum.

on the east side, with a return at the north-east and south-east angles, was, doubtless, the *peribolus* wall of the temple. The steep ascent of the ancient city was broken into a series of similar terraces, such as at Cnidus may still be seen above the surface. These terraces served to keep the soil from being swept away by mountain-torrents, and must have added greatly to the beauty and symmetry of the ancient cities.

On the west the platform extends to the spur of the conical hill already described. Here, at a distance of 185′ from the western side of the Ionic temple, the native rock rises to the surface, and has been cut out into monolithic tombs. One of these tombs consisted of a square subterraneous chamber, about 10′ each way, with several small oblong cells leading out of it on each side. Several of these tombs had marble doorways facing the east. These doorways had no architectural decorations, but on the lintel of one of them was a Greek inscription, in characters of the Roman period, stating that the tomb within belonged to one Narcissus, a baker.

All these tombs had been opened and plundered. They form part of the great intramural cemetery, which, as has been noticed, *ante*, p. 278, extends from the base of the conical hill nearly to its summit on the south and east sides.

PLATFORM OF HAGIA MARINA.

It has been already stated that Captain Spratt, R.N., on making the chart of Budrum, selected as the most probable site for the Mausoleum, the platform of Hagia Marina, which rises out of the surrounding plain, at some distance to the east of the true site. This platform has evidently been formed by levelling the native rock, which, in the southern part of it, crops up to the surface. Captain Spratt's reasons for considering this the site of the Mausoleum will be found in his Memoir, to which I have already referred, *ante*, p. 272.

These arguments, which the discovery of the true site renders it needless to discuss here, induced me to explore this spot on first commencing the search for the Mausoleum.

The result of this excavation may be thus described:—On reference to the plan of this field, it will be seen that the platform has been occupied by a fortified Byzantine monastery, of which the external wall still remains. Within and around this inclosure are several Turkish houses, and at its northern extremity are remains of a Roman mosaic pavement, on which rest several drums of Byzantine columns. Here probably stood the church of the monastery.

It will be seen by Plate XLVII. that, on the eastern side of the inclosure, an ancient Hellenic wall has been made use of for some distance along the side of the road. This wall made a return at right

angles to the west, at the spot marked *Tree;* the eastern side of the inclosure being continued by a Byzantine wall, which trended gradually to the north-west.

Taking the return of the Hellenic wall as a starting-point, I proceeded to trace it westward to the point where it terminates on the Plan. West of the spot where it ceases, there are no traces of an Hellenic building within the inclosure.

To the north of this wall I found various foundations composed of grouted rubble and remains of late mosaic pavement. These appeared to belong to the Byzantine monastery. Between the Hellenic wall and the Turkish houses on the south, were a number of party-walls, all branching out from the main Hellenic wall, and forming rooms.

The foundations of these walls ran as deep as ten feet below the surface. In the spaces inclosed by them I found vast quantities of potsherds at a depth varying from ten to seven feet, below which was the native rock, which in this part of the field sinks very abruptly from the surface.

As the excavation approached the houses on the south side, we found fragments of Greek tessellated pavement and painted stucco, in great quantities, lying in the soil of the field. The tessellated pavement was of very fine workmanship, being composed of small cubes of white, black, and red marble: occasionally these *tessellæ* were of vitreous composition: the cubes were beautifully cut and set in a fine cement, composed of pounded marble. The patterns, so far as can be made out from the frag-

ments, appear to have been simple stripes, volutes, and borders. In the volutes, the eye or centre of the spiral was formed of *tessellæ*, diminishing in size as they approached the centre of the spiral. The different colours were used in broad stripes, between which were laid thin *laminæ* of lead, apparently for the purpose of making the joints closer. The patterns on these fragments resembled those of the tessellated pavements found at Pompeii and Herculaneum, and showed a simpler and purer taste than the designs of the later Roman mosaics.

The *tessellæ* appear to have been inserted in a fine cement of pounded marble, below which again was a layer of coarser cement, composed of pounded brick and lime.

With these fragments of pavement were found an immense number of pieces of painted stucco from the sides of walls.

The most interesting of these were a number of fragments of cornice, on which were painted borders of the well-known Greek ante-fixal flowers, in several colours. The soil of this part of the field being sandy, the colours have been preserved in unusual freshness.

The stucco on which these ornaments are painted is composed of pounded white marble laid on a coarser plaster.

With these fragments were found pieces of fluted half-columns, from four to six inches in diameter, of the same material, and thin slices of marble, evidently cut for veneering the sides of

rooms. Some of these slices appear to have been painted.

It is well known that the ancients decorated the interiors of their houses with fine painted stuccoes and with marble inlays. These materials were used by Greek architects where we should apply plaster or painted wood, in cornices, wainscots, and panelled work generally; and fragments of painted stucco and of marble linings usually strew the surface of the ground on the sites of Greek cities. The extraordinary durability and fineness of this stucco, and the beauty of the colours, render it well worthy of the attention of the modern architect.

The party-walls, among which these fragments of stucco were found, were composed of rubble grouting. In some places the painted stucco was still adhering to them, but the patterns and colours of these portions were less elegant than in the case of the detached fragments, and may be of a later period.

Nothing about the walls showed them to be decidedly Hellenic in character: they seemed rather of a later period; as, in one instance, I noticed in the masonry a squared block, which had certainly been taken from an earlier Hellenic building.

It is quite possible, therefore, that these party-walls may be Byzantine, and that the main line of Hellenic foundation from which they diverge, may have been found *in situ* by the Byzantine builders, and incorporated in the plan of their monastery, as was frequently the case.

The ground being covered with houses, I did not pursue the excavation southward. To the west the

foundations died away in the native rock, which here crops up to the surface. The wall, which, as has already been noticed, forms part of the eastern side of the monastery, is of good isodomous masonry. Its surface is roughly tooled, showing that it was an external, or *peribolus* wall. On examining the south-west corner of the Byzantine monastery, I discovered an angle of similar masonry. (See the Plan.)

The form of the building which occupied this part of the platform must have been oblong, and its measurement must have been 164′ from east to west, and 124′ from north to south. In a cowhouse near the south-western angle is a piece of pavement composed of three large blocks. The whole length is 7′ 10″. One of the blocks measured 2′ 5″ by 2′, by 8″ in thickness. The other was considerably thicker.

Whether this pavement continues under the south wall of the cowhouse could not be ascertained. Under these blocks I found the original rocky soil of the field.

In a garden below the south wall of the monastery is a well (see the Plan), from which I obtained the inscription (Plate LXXXVIII. No. 12), which consists of two fragments of a white marble slab. The mention of Gymnasiarchs in this inscription makes it not unlikely that the ancient building, situated so near the well, was a *Gymnasium*, probably the one mentioned in an inscription (Appendix, No. 2) as having been built by one of the Ptolemies. In the northern wall of the Byzantine

monastery, opposite to the spot marked "Mosaic pavement" in the Plan, are several fluted columns of grey marble, built into the masonry. In the flutes of these are names inscribed Κιονηδόν, which have been copied by Hamilton.[d] These inscriptions, and also those from the well, are of the Roman period. If a *Gymnasium* stood on the platform, these columns were probably taken from it. A little to the east of this place are two drums of Ionic columns of white marble, the position of which is marked in the Plan.

These drums are 2′ 8″ in diameter; the number of flutings is 24, their width 4″. They rest on a mosaic pavement of the same coarse character as the piece to the west, marked in the Plan, and the portions within the inclosure of the monastery.

This pavement is of the Byzantine period, and has been patched in places with thin slices of marble, which have been stripped from the lining of some earlier building.

In a field lying immediately to the west of the western wall of the monastery, near its north-western angle, I made a small excavation in the spring of 1856. The ground here was full of concrete foundations; a square slab of white marble, apparently from the pavement of some fine edifice, was lying on the surface of the field. I dug up here two pedestals, very coarsely sculptured, on

[d] Asia Minor, ii. p. 32. Appendix, *ibid.* Nos. 275—278. See also Boeckh, C. I., No. 2656 *b*. The word νίκη occurs twice in these inscriptions, which makes it probable that they record the names of victors in public games.

each of which, in relief, was a buckler, and, below, the representation of an altar. Upon this altar was in relief a two-handled cup, of the kind called *cothon*, round which a snake was twined. These pedestals were each 4′ 2″ high, and 1′ 8″ wide.

I was assured by a Turk that, under his house, built against the west wall of the monastery, was a vaulted passage or chamber, in which were many fragments of Greek *amphoræ*.[e]

A little to the south of the Temple of Mars a site is marked in the Plan of Budrum as "Field of Sherif Mehemet." Having been informed that thirteen Byzantine gold coins had been found here some time ago, I partially explored this site, but discovered nothing except concrete foundations and a few small antiquities of the Roman period.

TEMPLE OF DEMETER AND PERSEPHONE.

On reference to the Plan of Budrum, a spot will be seen, a little to the S.W. of the Mausoleum, marked "Field of Chiaoux." My attention was first called to this field on my visit to Budrum in the spring of 1856.

The proprietor, a very intelligent old Turk, called Mehemet Chiaoux, invited me to dig, in the most friendly manner, assuring me that he had found in

[e] Near this place were several large blocks of grey marble, with one face polished and slightly curved. In length they were 4′, in breadth 2′ 3″, in thickness 1′ 2″.

the soil many small terracotta figures. The account he gave of their discovery was as follows: —

On first opening the ground he found, very near the surface, a number of fine pieces of marble laid like a pavement; below these a bed of cement; and below this again a black earth, in which were terracotta figures, and also a marble slab with an inscription and five figures in relief.

On clearing away the earth to the west of the spot indicated by Chiaoux, I came to a foundation running N.W. and S.E., about 3′ 7″ wide, cased on its western face with wrought stones. Within this ashler casing was a solid wall of small stones, cemented by grouting. This wall was about 3′ below the surface. I dug down till I found the bed on which this wall was laid, about 9′ below the surface, in a clay containing water. In the black earth above this clay I found many hundreds of small terracotta figures lying in layers.

These figures averaged from 5″ to 8″ in height; they were cast in a mould, and probably retouched by the hand. They were mostly mutilated, and in bad condition, having suffered from lying in the wet so long. These figures are certainly of the Roman period, and are executed in a coarse and conventional manner. With them were found the following objects:—(1) a scarabæus of green basalt of the Roman period; (2) a hand from a female statue, in white marble, life size, of coarse execution, and of the Roman period; (3) a long strip of beaten gold, probably from a wreath; (4) the bottom of a small marble *Pyxis*.

On recommencing the excavations at a few feet to the north of the first digging, I came upon a great quantity of small plain Roman lamps, of red unglazed earth. They were lying in layers so thick that the workmen threw them out by shovelfuls. About half a mule-load were discovered altogether: it is remarkable that the specimens present little variety.

I next proceeded to trace out the lines of foundations (see Plate XLV.), in the course of which operation I continued to discover veins or layers of terracotta figures, generally lying along the side of the foundations. These, like the lamps, seem to have been assorted like articles in a shop, many specimens of the same type occurring together; they were lying in the earth, immediately over the bed of clay, without any protection. On looking over the whole mass, the following varieties of type presented themselves:—

Archaic types:—

1. Aphrodite wearing a talaric *chiton*, with an upper garment falling nearly to the knees in front, and halfway down to the calf on the left side. In her right hand she holds a dove on her breast; her left holds the edge of her upper garment: the hair is drawn close to the head. (Plate XLVII. fig. 2.)

2. A similar figure, the left arm hanging down under the drapery.

3. Female figure in a talaric *chiton*, with a *peplos* drawn across the body, so as to leave the right breast exposed; her right hand raised; in her left, a round object, perhaps an apple or pome-

granate fruit: her hair falls in long tresses over her shoulders. (Plate XLVII. fig. 3.)

4. Similar figure; in her right hand a *phiale.*

5. Female figure, Aphrodite, wearing a talaric *chiton* and a *peplos,* drawn over a square head-dress, and falling over the shoulders; in her right hand a dove.

6. Naked male figure standing with the feet close together, and the hands at the sides; the hair long, —perhaps Apollo.

7. Male figure draped to the feet; in his left hand a lyre: his feet are placed close together.

Other types:—

1. Female figure, Demeter or Gaia Kourotrophos, wearing a talaric *chiton* and a *peplos,* drawn over the back of the head; in her arms an infant emerging from her veil. (Plate XLVII. fig. 5.)

2. Seated figure of Cybele, wearing a talaric *chiton* and *peplos;* in her lap a lion, in her right hand a *phiale.* (Plate XLVI. fig. 5.)

3. Kanephoros, bearing on her head the *kane:* she wears a talaric *chiton.*

4. Persephone, wearing a talaric *chiton,* over which falls a *diploidion* as far as the hips; in her right hand she holds a pomegranate fruit, her left rests against her hip. The head of this figure is wanting.

5. Persephone. The lower half of her body clad in a *peplos;* in her left hand she holds a young boar; her right hand is raised to the left of the shoulder. (Plate XLVII. fig. 4.)[f]

[f] Compare Panofka, Terracotten d. k. Museum zu Berlin, Taf. lviii. fig. 2, where the same type occurs.

6. Similar figure wearing a *chiton*, a *peplos* falling over the back of the neck, and a *diploidion*.

7. Similar figure supporting with her right hand a *hydria*, carried on her head.

8. Youthful female figure wearing a talaric *chiton* and a *peplos;* in her left hand, a circular object. She leans on her left elbow. (Plate XLVII. fig. 6.)

9. Youthful female figure, probably Persephone, her *peplos* drawn close across her body. (Plate XLVI. fig. 3.)

10. Persephone; in her left hand a pomegranate fruit; with her right she supports on her head a *hydria*.

11. Youthful female figure wearing a *chiton* and *peplos*, and supporting on her head a *hydria*.[g]

12. Hydrophoros wearing a talaric *chiton* and a *peplos*, falling over the left arm; in her left hand a *phiale:* her hair falls in long tresses. (Plate XLVII. fig. 1.)

13. Similar figure: over the *chiton* falls a *diploidion*. (Plate XLVI. fig. 4.)

14. Demeter wearing a *chiton* and *peplos;* in her left hand two ears of corn: her hair falls in long tresses. (Plate XLVI. fig. 1.)

15. Winged female figure moving to the right, and wearing a talaric *chiton:* in her right hand she holds a sling (?); perhaps, therefore, this figure represents Nemesis. (Plate XLVI. fig. 2.)

16. Youthful Dionysos, the lower half of the body clothed in a *peplos;* the hair long, and

[g] Besides the above types of Persephone, there are a number of figures representing a young girl with a *peplos* wound round the lower half of the body, and holding either a fruit or a *phiale*.

crowned with a wreath of flowers. (Plate XLVI. fig. 6.)

17. Bearded Dionysos; the lower half of the body clothed in a *peplos*, which falls over the left arm; in the left hand a *phiale*.

18. Bearded head, probably, of Dionysos: from the back of the head a veil or linen head-dress falls over the shoulders.

19. Grotesque figure of a naked boy crouching; in his left hand he holds a small square object. (Plate LX. fig. 11.)

A few yards to the east of the principal excavation I found a large block of marble, inscribed with a dedication to Demeter and Persephone. (Plate LXXXVI. No. 5.) This block was smoothed on the inscribed side, and had evidently formed part of a Hellenic wall. It is to be presumed, therefore, that it originally belonged to a temple of the two deities to whom the dedication was made; and as, from the size of the block, it could not have been easy of transport, the edifice from which it had been removed probably stood at no great distance from the spot where this base was discovered. Close to this inscription was a wall running N. and S., composed of blocks 2′ 3″ wide. In one place there were two courses of these blocks, the uppermost being 3½′ below the surface. I uncovered 28′ of this wall, but could not pursue it, on account of the crops on the north. It met another foundation running east, and 4′ 6″ in width. The stones were smaller than those of the other wall. Neither of these walls are marked in the plan, as they

were laid bare in the first excavation, and covered over again immediately, on account of the crops. In the field to the west I found several portions of the cornice of a building of the Roman period, lying close to foundations, which appeared to be those of an early Byzantine church. (See the Plan.) A very coarse mosaic pavement was discovered among these foundations, and a drain underneath it, large enough to admit a man's body.

The examination of both the fields was necessarily a very partial one, as the ground, being planted with fruit-trees, could not have been obtained except at an extravagant price.

On a review of the facts which have been already stated, I think it probable that a temple of Demeter stood in the most western of the two fields, on or near the site of the Byzantine church.

The vaulted foundations in the field of Chiaoux were probably the substructures of buildings within the sacred Temenos. We know that such vaults, called *favissæ* by the ancients, served as magazines, in which were deposited statues which had fallen from temples, and certain other votive offerings; and thus only can be explained the finding of such immense numbers of terracotta figures and lamps within the grouted foundations.[h]

[h] We learn from Gellius, Noct. Attic. ii. 10, that Varro, on being asked by Servius Sulpicius what *favissæ Capitolinæ* were, replied, "Cellas quasdam et cisternas, quæ in area sub terra essent; ubi reponi solerent signa vetera, quæ ex eo templo collapsa essent, et alia quædam religiosa e donis consecratis." He adds, "Q. Valerium Torauium solitum dicere, quos *thesauros* Græco nomine

It is probable that these offerings were sorted according to types, on being originally deposited.

This order would of course be disturbed by the fall of the vaulting, or by the iconoclastic zeal of the early Christians. Hence so many of the same type were met with; a fact which it is difficult, otherwise, to explain, unless we suppose that the vaulted building in which these terracottas were found, was the magazine of their sale or manufacture. I know, however, of no evidence in favour of such a supposition, unless it be the statement of Plutarch (Quæst. Rom. xxiii.) that at Rome it was customary to sell articles used in funeral rites, *τὰ πρὸς ταφάς*, in the *temenos* of Libitina, a deity which, he adds, was held identical with Aphrodite. It is supposed by a writer in Gerhard's "Archäol. Zeitung," 1848, p. 278, that the sepulchral objects alluded to by Plutarch in this passage were terracottas.[i]

appellaremus, priscos Latinos *flavissas* dixisse." A little further on he calls them "cellas quasdam et specus, quibus æditui Capitolini uterentur ad custodiendum res veteres religiosas."

[i] In the Annali dell' Inst. Archeol., Rom. 1835, p. 50, is a notice of a great discovery of terracotta figures at Pæstum, which took place about 1821. The greater part of these were figures of Persephone holding a pig. They were found in chambers near the great temple. The author of the notice supposes that, from the immense quantity of these terracottas discovered, the site where they were found was the place of their manufacture. Gerhard, Bullet. dell' Inst. Arch. Rom. 1829, p. 189, thinks that the temple near which they were found was probably sacred to Demeter. See also Gerhard, Antike Bildwerke, Text, p. 227.

CHAPTER XII.

EXCAVATIONS IN THE ANCIENT CEMETERIES, BUDRUM.

Eastern Cemetery :—Tombs at Kislalik ; their classification. Fictile vases and coins found in *sori;* attribution and probable date of those coins ; sepulchral *pithi* of red clay ; inscribed *stelé ;* graves near house of Khodja Mehemet ; sepulchral inscription ; fragments of flageolet. Western Cemetery :—Tombs near church of Hagios Georgios ; sepulchral inscriptions ; rock tombs south of Caplan Calessy.

DURING the spring of 1855 I remained for about six weeks at Budrum, and took that opportunity of partially exploring the two cemeteries, which, as has already been stated, lie east and west of the city walls.

The part of the eastern cemetery where I commenced operations is called Kislalik. Here the course of the ancient road to Mylasa may be distinctly traced by a row of square basements of tombs on which modern Turkish houses are built, and which lie immediately to the east of the watercourse marked in Plate I. These basements are either built of blocks of grey marble or faced with such blocks. There are generally two small doorways in the front, which lead into a small vaulted chamber. Several Greek inscriptions are built

into the walls of the Turkish houses on this spot, and one or two still remain in the walls of the basements in their original position. These are all of a late period. Immediately to the north of this row of houses is a field belonging to a Turk called Suliman, where I opened a number of tombs of different kinds. They may be thus classified:—

1. Sepulchral chambers, *Hypogæa*. The largest of these was about 17′ square, and contained two large stone *sori*. The roof was composed of stone beams, 12′ long, by 1′ 9″ by 1′ 3″; over which was another layer of similar beams laid parallel to them, and over this, again, a pavement of native tufa, which was very like cement in appearance and texture. This stone is called by the natives "Pori."[a]

2. Vaulted chambers above-ground, built of concrete and rubble. These were all in ruins. They appear to have been faced with marble or squared stone, which has been torn away, leaving nothing but the core of the masonry. Both these and the preceding class had all been rifled.

3. Large tombs in the earth lined with slabs of native freestone, and covered with thick blocks of tufa. Sometimes the covering slabs were jointed one into another. In these tombs, which I should imagine to be of a late period, I never found anything but bones. The graves were generally 6′ 5″ long, by 2′ 9″ by 2′ 8″.

4. Large stone *sori* with monolithic lids, the

[a] The πώρινος λίθος of Pausanias, vi. 19, 1; cf. Herod. v. 62, and Baehr's note *in loc.*

section of which formed an obtuse-angled triangle. Of these I only found two. The largest measured 6′ 7″ by 2′ 5″ by 2′ 5″; the thickness of the sides was 4″. The lid, which measured 7′ 6″ in length by 3′ in width, with a thickness of 1′ at the *apex*, required a number of men to lift it. On raising it up, I looked down into the *soros*, and saw at one end a vase, lying on its side, and a small bronze *phiale* of very elegant form. All trace of the body had disappeared, except a fine layer of dust at the bottom; on examining which, I found a silver coin of Chios, which may be thus described :—

Obv. Androsphinx, seated to the left; in front a *diota;* above which a bunch of grapes.

Rev. Quadripartite incuse. Size, 2; Weight, $40\frac{5}{10}$ grains.

The vase was an *amphora*[b] of a very late period. The figures were red on a black ground. The subject was as follows: On the left the youthful Dionysos seated on a chair, holding in his left hand a *thyrsus*. In front of him is a winged Eros moving to the right, a female figure playing on the *tympanum*, and looking back at Dionysos as she moves to the right, and a bearded Satyr seated, playing on the double flute. Behind Dionysos is another female figure balancing the one on the right, and dancing. This figure is nearly effaced, but, from the general action, it is probable that she was represented playing on the *krotala* or castanets. Both

[b] The shape was that marked CLII. in the series of shapes of Vases, Plate V. of Catalogue of Greek Vases in the British Museum, 1851.

the female figures are draped to the feet. On the reverse of the vase are three *ephebi* conversing. Close to this *soros* was another smaller one, in which was a smaller *amphora*, similar in style, but of which the subject could not be made out, in consequence of the corroded state of the surface. This smaller *soros* also contained a small two-handled cup of the kind called *kantharos*, painted black.

5. Tombs in the form of an oblong trough, πύελος, made of baked red clay, with a detached cover resembling that of a dish. These troughs were simply laid in the earth very near the surface. They contained no bones. In several of them I found a small silver coin deposited as a ναῦλον. These coins presented two varieties of type, which may be thus described:—

(1.) Obv. Lion's head to the left. Rev. Trident. Size, $\frac{3}{4}$; Weight, $4\frac{3}{10}$ grains. This is evidently a coin of Halicarnassus, as the same type occurs on the copper coins. So far as I know, the type is unknown in silver.

(2.) Obv. Youthful male head to the right, beardless. Rev. Ram's head to the right. Size, $\frac{3}{4}$; Weight, $4\frac{1}{10}$ grains.

Three other specimens of this type were found, but much worn and broken.

Three coins with a precisely similar type occur in the collection of the British Museum, two of which read very distinctly ΓΑ on the obverse. These coins are better preserved than those found by me, and show an ivy-wreath round the youthful head, which, therefore, is probably Dionysos. The

type may therefore be attributed to Pale, in Kephallenia.[c] The three specimens in the British Museum once formed part of the collection of the late Mr. T. Burgon.

The date of these coins may range from B.C. 300 to 200; showing that, though the clay coffins were found so near the surface, this kind of interment belongs to the Hellenic period. I met with examples of this mode of burial in the course of excavations in the island of Calymnos. Terracotta coffins were also used by the Egyptians.[d] Those of the Etruscans are too well known to require notice here.

6. Graves lined and roofed with flanged tiles. This class of tomb has been met with at Calymnos, and in many parts of the Greek world.[e]

7. Large *pithi*, or jars of baked red clay, laid in the earth. I met with this mode of interment at Calymnos, and in an Hellenic cemetery in the Troad, excavated by Mr. Frank Calvert.[f] I have also noticed evidence of its adoption in Rhodes and Crete. The *pithi* were laid on their sides in the earth, the mouth being closed with a flat stone. Those found in the Troad by Mr. Calvert, often contained a number of smaller vases, and

[c] Copper coins with a nearly similar type, but with KE in monogram, are attributed by Borrell, Numism. Chronic. vi. p. 193, to Kebrenia, in the Troad. Compare Waddington, Mélange de Numism. pp. 24—27; but the head on the obverse of these copper coins is laureate, while that on the silver coins has an ivy wreath.

[d] Archæological Journal, London, 1856, xiii. p. 17. Birch, Hist. Anc. Pottery, i. p. 23.

[e] Birch, Hist. Anc. Pottery, i. p. 163. Archæological Journal, *loc. cit.*

[f] Archæological Journal, xvi. p. 1.

occasionally terracotta figures. In one of them was a small piece of marble inscribed with a name. Many had been anciently riveted with lead. Those at Budrum contained nothing.

8. Cinerary urns.—Of these I found one placed in a square hole, each side of which was formed by a wall loosely built of rough stones, without mortar. The urn was covered with a rough flat stone. It was full of bones, but contained nothing else.

9. Tombs formed of two slabs placed at an acute angle, and fitted one into the other, so as to form a penthouse roof. Each of these graves was closed with a headstone set vertically. Of this class I only found one.

10. Graves built of rubble walls, and covered with rough flat stones. They were sometimes lined with mortar. These graves were found only a few inches below the surface of the field. They were probably of the late Roman period, from the rudeness of their construction and the absence of Hellenic remains in them, and also from the fact that one of them had for its cover a Greek *stelé*, with the inscription (Plate LXXXVI. No. 4). This *stelé* is probably of the time of Alexander.

I found nothing in these tombs but very coarse unglazed ware, and two or three plain bronze mirrors and small objects of the same metal. Two of these mirrors were square. The pottery consisted, for the most part, of very small vases of coarse glazed red ware, with long narrow necks, the shape slightly bulging in the centre and tapering off to the foot. These probably held unguents.

In a field separated from that of Suliman

by the road to Mylasa, I found, about two feet below the surface, a large *diota* of coarse earthenware, placed upright in the earth. Digging down to the foot of this, I found a built grave covered with slabs of hewn stone. Lying on these was a bronze *simpulum*, or sacrificial ladle, which must have been left there with the *diota* after the performance of sepulchral rites, either at the time of interment or at some subsequent period.

This grave contained no remains whatever, and may possibly have been a cenotaph.

The eastern Hellenic cemetery extends, as will be seen by Plate I., to the south-east of Kislalik.

In the house of a Turk called Khodja Mehemet, was the sepulchral inscription (Plate LXXXVIII. No. 10), which was evidently placed under a statue surmounting an architectural tomb.

Digging in front of this house, I found several graves, two of which were regularly built of squared stones, but appeared to have been opened before. In a grave at the side of these I found the fragments of a flageolet, or similar instrument, made of bone cased externally with bronze. The mouthpiece, which was still entire, showed that this kind of instrument was held in an oblique position when played on. It may, therefore, be a variety of the *plagiaulos*.[g] The fragments showed no trace of stops.

In a grave at the side of this was a circular leaden jar, 2″ high by 2″ in diameter; and a bronze *spatula*

[g] The instrument in the hands of the small terminal figure in the British Museum (Museum Marbles, pt. ii. plate 35), is usually considered to be an example of the *plagiaulos*. The mouthpiece in this figure projects much further from the pipe than in the case of the one described above.

$4\frac{9}{10}$″ long. Another grave on this site contained about two hundred small earthen vials, such as I have already described, *ante*, p. 338, as having been used probably for unguents. This grave was built of loose rubble-stones, and contained no other remains.

WESTERN CEMETERY.

Outside the gate leading to Mylasa are several large square basements faced with ashlar blocks within which is a core of rubble and concrete. On these basements are vaulted chambers, which, in some cases, appear like later additions. In a wall in one of these tombs is an inscription (Appendix, No. 74) referring to an ancient written document, which was, probably, the title-deeds of the tomb.

In the wall of the field where these tombs stand I noticed a piece of Doric triglyph, probably from an architectural tomb. The ground which I examined here was a field a little to the south of the built tombs at the foot of a small hill and at the side of the city wall. Here I opened about six or seven graves, mostly clay troughs. I found nothing in any of them except the silver coin of Halicarnassus, with the lion's face and rev. trident, described *ante*, p. 336. As the ground here abounds in springs, the graves were full of earth, and the pottery had all rotted.

Near the shore to the south-east of Budrum is the church of Hagios Georgios, marked in Plate I. At the distance of rather less than a quarter of a

mile to the south-east of this is a slope, on which, in the spring of 1858, was discovered an oblong chamber cut in the rock, parallel with the east end of which was a wall of large limestone blocks, running N.E. and S.W. This wall had been only partially uncovered when I visited this spot. According to the statement of the Greek who owned the field, nothing but bones had been found in the tomb.

Near this tomb, but a little higher up the slope, were found,—

1. A cippus of white marble, ornamented with bulls' heads and a sepulchral inscription, No. 75 of Appendix. 2. A limestone base, 2′ 8″ by 12½″ by 1′ 6,″ on which a statue must have stood. On this base were inscribed the names of Tolmidas, the son of Kleodamos, a native of Meliteia, in the Thessalian Pthiotis. (Appendix, No. 76.)

2. A thick slab of white marble, 2′ 5″ by 2′ 4″, with a sepulchral inscription in elegiac verse, to Myrton, the daughter of Jason, a Myndian. (Appendix, No. 77.)

On the opposite side of the bay, south of the rock of Caplan Calessy, are a number of tombs cut in the rock. I examined some of these, but found that they had all long since been opened and plundered.

END OF PART I.

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